

NEWS: EUROPE

EU funding for E Europe under threat

By Caroline Southey
in Brussels

European Union funds to boost democracy and economic reforms in the former Soviet Union risk being cut off in January, due to a row over how the European Commission allocates contracts for projects in the new independent states.

The Tacis programme, set up in 1991 to help foster reform in the region, was to have had a budget of about Ecu500m (£415.5m) next year.

The Commission is resisting a campaign, led by Spain, to toughen controls on the contracting system.

Spain, which holds the EU presidency, wants a set of rules that would oblige the Commission to provide more detailed information about how short-lists are drawn up and what criteria it has used for allocating contracts.

Spain is also seeking to reduce the threshold for contracts that are not tendered from Ecu300,000 to Ecu150,000.

The proposals, blocked at successive meetings of foreign ministers, are backed by southern member states which feel they have won a disproportionately small number of contracts, and opposed by northern member states, which have been awarded the bulk of the contracts.

An EU official said: "This is a completely foolish reason to block the aid. While the economies of these countries are falling to bits all the EU can do is haggle over a handful of contracts."

Germany, the Netherlands, Belgium and Luxembourg have supported the Commission's view that Spain's proposals would create bottlenecks and lead to long delays in allocating contracts. "The fear is that they will lead to over-bureaucratic structures rather than transparency," another EU official said.

The Commission insists that the arrangements are sufficiently transparent and that

the regime for tendering is professional and objective.

"The system is not weighted in favour of any countries. Southern member states are shortlisted as much as northern ones. But they win less contracts," an EU official said, pointing out that countries such as Italy and Spain "don't have the experience, language skills and know-how" of some northern countries.

The Commission is also resisting a drop in the threshold for non-tendered contracts. Most of the business for sums under Ecu300,000 goes to non-profit organisations for activities such as conferences, or monitoring elections. "It can't be in anybody's interests to see these things delayed by a long tendering operation," an EU official said.

EU foreign ministers will try to reach agreement on the proposals next Monday.

The contracting plans form part of a larger regulation package for Tacis, including guidelines for implementing, monitoring and evaluating projects.

Failure to reach agreement could bring Tacis to a halt early next year when the present arrangements governing the project expire.

With a budget of Ecu470m last year Tacis signed 1,300 contracts, most of which were awarded through a restricted tendering procedure. This involves drawing up shortlists of six to 12 companies from which an evaluation committee - made up of Commission and outside experts - elects the winner.

The Tacis programme has been criticised by the European Court of Auditors for inefficiency and poor targeting of funds.

However, EU officials point out that the Commission last year improved the operation, although it remains handicapped by a lack of staff and the fact that it has few representatives working on the ground.

Denmark begins to rue Emu opt-out

As the scheduled start in 1999 of economic and monetary union looms into view, Danish leaders are increasingly regretting the day they had to insist on opting out of the project because of deep objections within Denmark to the European Union's Maastricht treaty.

Denmark created one of the EU's knottiest problems by rejecting Maastricht and its calls for closer political and economic ties in a 1992 referendum, throwing the whole treaty into doubt. The issue was resolved in December 1992 at a summit in Edinburgh, where Denmark negotiated opt-outs from key Maastricht provisions, including Emu.

The opt-out formula was hailed as a triumph of creative diplomacy. It worked - at least in the short term - as the Danes accepted their revised version of Maastricht in a new referendum the next May.

But now Denmark's main political parties face a dilemma. Both the Social Democratic-led coalition government and the two main right-of-centre opposition parties believe that the country would be better off joining Emu after all. They are afraid of the consequences for the economy if they do not - but politically their hands are tied.

The economy is in strong enough shape to join Emu, already meeting the criteria set down for membership on budget deficits, inflation, interest rates and currency stability.

Mr Mogens Lykketoft, finance minister, explains Denmark's position: "What we are

embarked upon is a long-term policy parallel to Germany. The German experience shows us there is no long-term gain in a devaluation or inflation policy. We want to be a hard-core currency and keep on that track."

However, Denmark's path to Emu is blocked by the promise made to the electorate as a condition for the second referendum to abide by the Edinburgh opt-outs - unlike Britain, which has the right to opt out of Emu but has kept open the question of whether it will do so.

"Our opt-outs are not at all based on economic reasons," says Mr Lykketoft. "It was a political necessity to define those opt-out clauses. That means for the time being that the issue [of joining Emu] is not open for discussion."

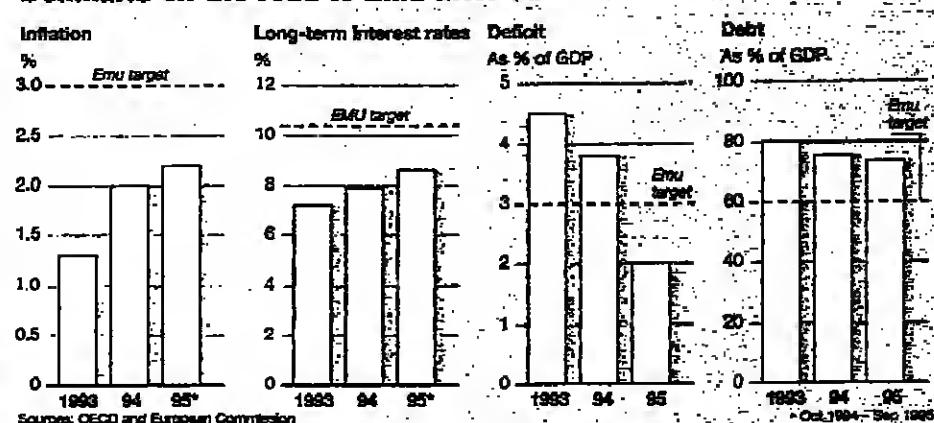
Ironically, the lack of an Emu option means the government is more determined than ever to stick to an Emu-tailored policy to minimise any penalty it might pay in the financial markets for staying outside. The anti-inflation stance has made the economy one of Europe's most stable, after recovery from a fiscal crisis in the early 1980s.

The krona has maintained its ERM parity since 1987, the key discount interest rate has recently been cut to below 5 per cent for the first time since 1989, and inflation is running at around 2 per cent.

Such was the control over the public finances that the present coalition was able to allow a strong fiscal stimulus in 1994, helping to produce growth last year of 4.5 per cent, in an effort to make an impact on unemployment. The rate of growth has since declined, but is still expected to be close to 4 per cent this year and 3 per cent in 1996.

Unemployment remains around 10 per cent of the work-

Denmark: on the road to Emu after all?



Sources: OECD and European Commission

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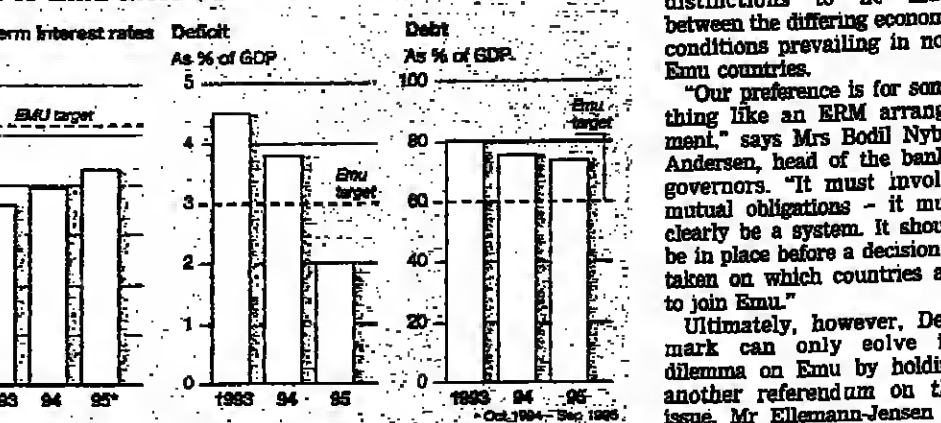
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Fininvest as probe stepped up into Fininvest

By Robert Graham in Rome

The political fate of Mr Silvio Berlusconi, the former Italian prime minister, looked increasingly uncertain over the weekend as anti-corruption magistrates stepped up investigations into alleged irregularities in his Fininvest business empire.

For the first time Mr Gianfranco Fini, head of the right-wing National Alliance (AN) and Mr Berlusconi's most important supporter, distanced himself from the media magazine turned politician. Mr Fini's stance appeared dictated by the fear that Mr Berlusconi's Forza Italia movement risked being seriously compromised by the judicial problems of its leader.

These problems coincide with the prospect of a general election in the new year. Other members of Mr Berlusconi's right-wing alliance remained reticent in their support for him in the face of what promises to be a showdown with judicial investigators.

For now, therefore, the best hope for Denmark's leaders seems to be that Emu is postponed.

High Carnegy



Fininvest election in view

Magistrates have summoned Mr Berlusconi for questioning on Thursday over allegations that Fininvest offshore subsidiaries in 1991 transferred L10bn (£3.9m) to a Swiss account controlled by Mr Bettino Craxi, the ex-Socialist leader.

They have also extended their inquiries to scrutinise the activities of several Fininvest executives in relation to alleged falsification of accounts. This followed raids late last week on the offices of at least two banks in Milan.

Since the corruption scandals broke in 1992, the Italian press has carried apparently well informed leaks from the Milan judiciary in advance of a key development.

This has been much in evidence in recent days, with reports that an important figure, with intimate knowledge of Fininvest's offshore and off-balance sheet operations, has supplied information.

Last week the magistrates issued four arrest warrants for alleged illicit financing of the now-defunct Socialist party. The warrants included Mr Giorgio Vanone, responsible for Fininvest's offshore financial operations, and Mr Craxi, allegedly the ultimate beneficiary of the L10bn.

Mr Berlusconi has insisted the transfers were legitimate operations conducted by Fininvest offshore subsidiaries and linked to payment for film royalty deals carried out by Mr Tarak Ben Ammar, a Franco-Tunisian film producer. He denied any funds had been transferred to Mr Craxi or his Socialists.

However, Mr Berlusconi admitted that the transfers used the same lawyers and offshore bank accounts as the Socialist party. The magistrates claim these accounts were handled by nominees of Mr Craxi.

THE FINANCIAL TIMES
Published by The Financial Times (Europe) GmbH, Wiesbadenplatz 1, 60318 Frankfurt am Main, Germany. Telephone +49 69 150 830. Fax +49 69 590 4481. Telex 416193. Represented in Frankfurt by J. Walter Brand, Wilhelm J. Brinzel, Colin A. Renard as Geschäftsführer and in London by David C.M. Bell, Chairman, and also C. Miller, Deputy Chairman, Shareholders of the Financial Times (Europe) Ltd. London and F.T. (Germany) Advertising Ltd. London. Shareholder of the above mentioned two companies is The Financial Times Limited. Number One Southwark Bridge, London SE1 9HL.
GERMANY:
Responsible for Advertising: Colin A. Renard. Printer: DVM Druck-Vertrieb und Marketing GmbH. Adminal-Rosenstadt-Straße 3a, 63263 Neu-Isenburg. Owned by Harriet International, ISSN 0174 7363.
FRANCE:
Responsible Editor: Richard Lambert, do The Financial Times Limited, Number One Southwark Bridge, London SE1 9HL.
FRANCE:
Publishing Director: D. Good, 168 Rue de Rivoli, F-75004 Paris Cedex 01. Telephone (01) 4297 0631. Fax (01) 4297 0629. Printer: S. Nard Edouard, 1521 Rue de Caen, F-93100 Rosbais Cedex 1. Editor: Richard Lambert, ISSN 1148-2753. Commission Paritaire No 678080.
SWITZERLAND:
Responsible Publisher: Hugh Carnegy 468 618 6088. Printer: AB Kallbrunnigen Express, PO Box 6007, S-550 06, Jönköping.
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Editor: Richard Lambert, do The Financial Times Limited, Number One Southwark Bridge, London SE1 9HL.

German companies give spur to investment abroad

By Peter Norman in Bonn

German business investment abroad, already growing strongly this year, will increase further in 1996, according to the DIHT, the umbrella body for the German chambers of industry and commerce.

A survey of 10,000 companies found that more than a third of industrial companies in western Germany planned foreign investments next year. By contrast, few eastern German companies are taking the plunge in the eastern German port of R

Dinar devalued to boost Serbian economy

By Laura Silber in Belgrade

Yugoslavia yesterday devalued the dinar, the national currency, by 69.7 per cent in an effort to resuscitate the Serbian economy after the lifting of UN sanctions. The move brought the dinar down to the rate prevailing on the black market, which has flourished despite threats of harsh punitive measures.

The Yugoslav federal government also took limited steps to liberalise foreign trade. The measures were part of a wider package, put forward previously by Mr Dragoslav Avramovic, the market-oriented governor of the National Bank.

But the government seemed to have stopped short of approving the other measures proposed by Mr Avramovic. He had placed a priority on privatisation, and favoured liberalising foreign investment and increasing the authority of the central bank. The government made no mention of these measures in its announcement this weekend.

Mr Avramovic announced the devaluation, saying that the bank rate would be 33 Yugoslav dinars to the D-Mark. The rate was previously one-to-one.

For months Mr Avramovic has been at odds with the government over the proposed package. His proposal for privatisation and market reforms was attacked by Mrs Mirjana Markovic, the powerful wife of the Serbian President, Mr Slobodan Milosevic.

Plaudits for Milosevic's 'politics of peace'

Overnight, peace seems to have become the most sought after commodity in former Yugoslavia following last week's endorsement by the presidents of Serbia, Bosnia and Croatia of an overall settlement.

In isolated Serbia a sense of relief prevails. Serbs hope that the Dayton agreement, by lifting UN sanctions against Belgrade, has halted the republic's slide into impoverishment and ended its exile from the outside world.

The state-run media reverberates with praise for President Slobodan Milosevic, once seen by the west as the main instigator of bloodshed in the Balkans and now regarded as the region's chief powerbroker and the cornerstone of peace.

Telegrams of support, from local branches of the ruling Socialist party and from state enterprises, gush with plaudits for Mr Milosevic's 'politics of peace' which, they say, he has pursued since Yugoslavia began disintegrating.

Trying to dispel doubt that the agreement was anything less than a victory for the 'wise policies' of Mr Milosevic, Television Serbia broadcast interviews with Serbian citizens whose views were unanimous: the US-brokered agreement merited their unconditional support and Mr

Milosevic was the person most responsible for delivering peace to the Balkans. Most opposition parties also welcomed the agreement. A lone voice of resistance in Belgrade came from Mr Vojislav Seselj, the ultranationalist MP and paramilitary leader who was once a close ally of Mr Milosevic. He accused the Serbian president of selling out the Bosnian Serbs in exchange for the lifting of sanctions.

His protest was seconded by Mr Radovan Karadzic, the Bosnian Serb leader whose political career is about to end. Mr Karadzic, who has been indicted by the international tribunal for war crimes, yesterday denounced the agreement for 'creating a new Beirut in Europe'.

Over the weekend thousands of Serbs who live in Sarajevo's suburbs turned out in protest against the deal, which returns the land to Bosnian government control. They carried placards written in the Serbian Cyrillic alphabet reading: 'We're not giving up Sarajevo'.

President faces tough test despite softer line by Congress critics, writes Bruce Clark

President Bill Clinton faces one of the toughest tests of his term in office today when he goes on television and tries to persuade the nation that peace in Bosnia is worth putting 20,000 US soldiers at some risk.

Clinton tries to sell Bosnia mission to a sceptical US

Congressional sceptics and influential columnists have softened slightly in their doubts about the Bosnia mission over the past few days. Several have shifted from a stance of outright opposition to cautious agnosticism.

On the ground will follow the United Nations down the path of ineffectiveness, they point to changes in the rules of engagement which would allow tough action, not only against those who attacked Nato's men but even when 'evidence of hostile intent' is ascertained.

But legislators like Senator John McCain, who have spearheaded the campaign to lift the arms embargo against Bosnia, were stressing yesterday that the president still had a huge task in allaying citizens' doubts about the Bosnia mission.

Pentagon officials, meanwhile, are lining up a formidable battery of arguments to be used against those who doubt the viability and desirability of sending in an 'implementation force' (Ifor) to nail down the deal that was sealed by three Balkan leaders in Dayton, Ohio, last week.

To those who fear that any mission is by no means confined to Bosnian Serbs. Hostile action against the US force could also be taken by anti-western Moslem fighters, or mujahideen, who have been fighting as irregulars in central Bosnia in support of Sarajevo's own forces.

Mr William Perry, US defence secretary, yesterday said the Nato mission would not be deployed unless it was absolutely clear that the Dayton plan enjoyed the consent of the leadership of all parties in former Yugoslavia.

He also pledged that, in one way or another, the imbalance in armaments between the Bosnian Serbs, who still possess hundreds of tanks, and the Bosnian government would be evened out by the time the Ifor left, within one year.

But he said that over the next six months an effort would be made to balance out these force levels by means of arms control and disarmament. Only if this failed would the US government begin equipping and training the Bosnian army to make sure that it was a match for the Serbs.

Any such move by Congress would be deeply unwelcome to the Europeans, who have been arguing for the last three years that boosting the Bosnian government's firepower would merely exacerbate the conflict.

Pentagon officials say they are adamant that any military aid to the Bosnian government will not compromise the Nato force's even-handedness in implementing the Dayton accords.

Perhaps the hardest question of all for the administration to answer at this week's congressional hearings on Bosnia will be the level of hostility which would prompt the US government to consider pulling out. He said that to be too specific would encourage those who had hostile intentions towards the US force.

Potential hostility to the US soldiers

EUROPEAN NEWS DIGEST

Ukraine scales back military

Ukraine will sell Russia 32 SS-19 nuclear missiles and 44 nuclear bombers in a deal meant to finalise a military divorce between the two former Soviet republics. The agreement, on Friday night in the Russian Black Sea resort of Sochi, underscores Ukraine's commitment to denuclearise and shrink its military.

Ukraine last year agreed to transfer all its nuclear warheads to Russia and accede to the Non-Proliferation Treaty. Mr Pavel Grachev, Russian defence minister, said the deal would smooth uneasy relations between Moscow and Kiev. General Igor Sergeev, commander of the Russian strategic missiles forces, said: 'The purchase of the missiles will enable Russia to maintain its nuclear potential at a proper standard until 2009.'

Waigel berated over surcharge



Germany's Free Democrats, junior partner in Chancellor Helmut Kohl's ruling coalition, yesterday attacked Mr Theo Waigel (left), finance minister, for seeking to delay the abolition of a tax surcharge, and said the government risked losing the next election over the issue. Mr Wolfgang Gerhardt, FDP chairman, called for a special cabinet meeting on the 'solidarity surcharge', introduced last year as a temporary measure to help pay for public investment in east Germany. 'Without tax cuts the whole coalition will not be able to survive at the 1998 federal election,' Mr Gerhardt told the Bild am Sonntag newspaper. Mr Waigel said last week the surcharge would not disappear before the year 2000, in what economists saw as an admission he was worried Germany might otherwise not qualify for membership of European currency union in 1999.

Alphandéry set for EdF

Mr Edmond Alphandéry, economy minister in France's former Balladur government, is today to be appointed president of Electricité de France, the state-owned utility, in the place of Mr Gilles Ménage, who resigned on Saturday. Mr Ménage was a Socialist appointee who is under formal investigation for organising wiretapping when he was an Elysée aide to President Mitterrand. The nomination will be confirmed at Wednesday's cabinet meeting.

Romanian property rights

Mr Ion Iliescu, Romania's president, has signed into law a restitution bill granting only limited compensation to former owners of nationalised property. The law, which settles ownership rights on some 200,000 properties, gives former owners the right to claim back one home, provided they still live in it, or to receive compensation of up to Lei500 (\$19,000). The law has been attacked by opposition parties which say it will benefit former senior communists inhabiting nationalised properties. Only a few former owners were allowed to remain in their homes.

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NEWS: INTERNATIONAL

FT writers set the scene for the Euro-Mediterranean conference opening in Barcelona today

EU aims to banish trade/aid dilemma

By Tom Burns

At the European Union's Edinburgh summit three years ago, Spain's prime minister Mr Felipe Gonzalez presented his 11 fellow heads of government with photographs of the coast of Morocco taken from the Spanish mainland. Mr Gonzalez's colleagues were obsessed with Europe's eastern frontier and he wanted them to recognise the proximity of its southern one.

Today the expanded EU of 15 states will sit down in Barcelona to face the neighbours - 12 "southern rim" Mediterranean nations, stretching from Morocco to Turkey. Spain's foreign minister, Mr Javier Solana, who will host the EU Mediterranean summit, says: "We all want to write a new chapter in our relationship".

For the Spanish government, the road to Barcelona's meeting of foreign ministers has been a long one. Recalling the milestones, Mr Solana says the Lisbon EU summit of 1989 first set out the "southern frontier" issue, but the fall of the Berlin wall concentrated minds elsewhere. "Recognising the prob-

lem was a quick process, but doing something about it took a little longer."

The breakthrough came at the Essen summit last year when German chancellor Mr Helmut Kohl was ready to take new EU challenges aboard.

'We all want to write a new chapter in our relationship'

"At last there was a shared realisation that the southern frontier was vital to Europe's stability. It is tremendously important, not just in the political and economic sense, but culturally as well because of the presence of so many millions of southern rim immigrants in the EU."

The subsequent EU summit at Cannes, earlier this year, delivered an allocation of EU funds totalling Ecu4.6bn (\$6bn) and a target of creating an EU-Mediterranean free trade area by 2010.

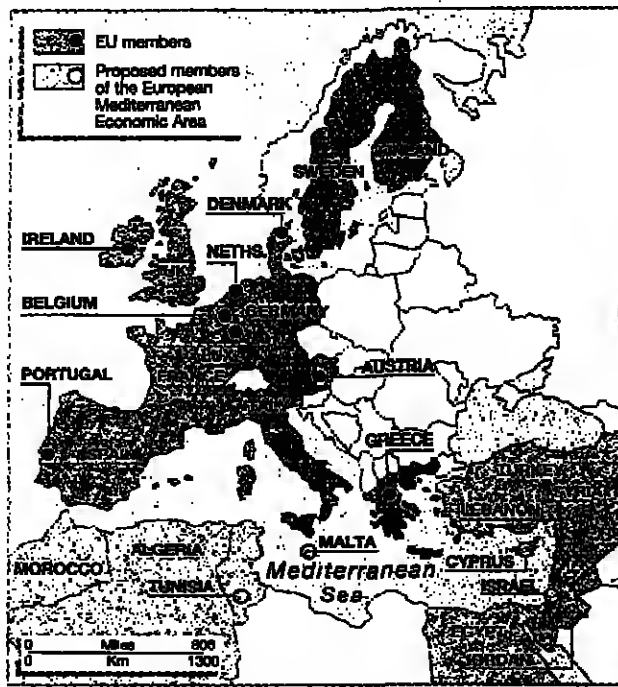
"We are now talking about a partnership that overcomes the

dilemma between trade and aid," says Mr Solana. "The purpose of our aid is to establish a more balanced trade relationship and the EU must be prepared to open its markets to what the southern rim produces."

Mr Solana insists the aid package will have a Brussels stamp: "There will be all the usual EU mechanisms in place to control the aid. There are no risks - bar the normal ones we know about in the union - of the resources being improperly used."

He has equally clear views on how to spend it: "The idea is to provide resources within a regional framework for major projects that deal, for example, with water and desertification, with major communications infrastructures, and with education and training."

The guiding principle of the aid package is to prepare the southern rim economies for the projected free trade area and this means fostering regional trade and loosening dependent relationships with the EU. Cross-border trade within the southern rim of the Mediterranean is high on the agenda.



The quicker and the better "horizontal" trade between the countries takes off, the easier the aid/trade dilemma is solved and the more fruitful will be the results of what Mr Solana calls the "vertical" north-south trade relationship.

A lot of heartfelt idealism wraps up Barcelona's free market package. Mr Solana, one of nature's optimistic extroverts, believes the conference will enable the EU to discover the lie of the land on its southern

frontier. The Barcelona declaration, when the conference winds up tomorrow, will include references to shared cultural principles as the basis for a stable partnership. "We are all very conscious that a lot of sensitivity is required to understand the other side, for a start to understand Islam," says Mr Solana. "It's quite wrong to talk about Islam, fundamentalism and terrorism in the same breath."

Algeria will grab political limelight

By Roula Khalaf

As the Euro-Mediterranean conference opens in Barcelona today, Algeria will find itself the political centre of attention and the country most left out economically. It stands in sharp contrast to its neighbours Tunisia and Morocco which have already agreed association deals with the European Union.

With its energy resources - \$10bn worth of yearly oil and gas exports - Algeria was once considered the most promising economy in the region. Since 1992, however, when elections expected to be won by Islamists were cancelled, provoking civil strife, Europe has looked upon Algeria as a source of destabilisation in the region. The EU's new emphasis on the southern rim of the Mediterranean aims to help raise living standards in stem the appeal of Moslem fundamentalism and reduce emigration pressures.

The presidential victory of former army general Liamine Zeroul is as a source of some comfort for Europe. Contrary to expectations, the elections were conducted amid relative calm and a majority of Algerians cast their votes. Algerian officials know that discussions with the EU on closer economic co-operation cannot begin before the restoration of security and political stability. Brussels has suspended most project aid to Algeria because European officials can no longer monitor the progress of projects.

But as Algeria struggles, Tunisia, North Africa's smallest country, arrives in Barcelona proud to have been the first to sign the association agreement with the EU.

The Tunisian private sector is already busy working out how it can compete with European products as barriers to entry are gradually lifted to create a free trade zone over the next 12 years.

The Barcelona conference presented a welcome deadline for Morocco, which reached an association agreement with the EU earlier this month, after nearly three years of haggling over tomatoes, cut flowers and fish.

The absence of a deal before Barcelona would have been embarrassing for both Rabat and Brussels. Access to European markets and attracting European investment are essential to the Moroccan economy.

Although it has successfully completed a liberalisation programme under the International Monetary Fund, the economy remains heavily reliant on agriculture and faces negative growth this year because of severe drought.

Roula Khalaf

Private sector puts its faith in Zeroual

Algerian business must assume larger role to benefit from IMF reforms

Groupe Metal-Sider Proflor was one of Algeria's largest private sector groups until 21 bombs, aimed at killing the group's anti-Islamist owner, blew the steel factory to pieces.

Undeterred, Mr Samir Alt-Aoudia, the company's director, plans to reinvest. His optimism is based on faith that newly elected President Liamine Zeroual will bring some "normality" to the country.

In the short term, Algerians are expecting that Mr Zeroual's landslide victory in elections on November 16 will lead to an end of nearly four years of violence which has paralysed the country. A resolution of the conflict is essential if Mr Zeroual is to tackle Algeria's even more daunting long-term problems and begin to integrate the country into the European economic sphere.

Mr Zeroual recognises that the country's real problems are social and economic. If Algeria's youth turned to Islamic fundamentalism in the 1980s, it is partly out of frustration with a regime that squandered resources on ill-conceived and ill-managed state enterprises. Mr Abdelkrim Hassani, who runs Alfa Info, a small computer software manufacturer, is also placing hope for the Algerian private sector in Mr Zeroual's hands, but not because he fears armed groups.

Mr Hassani, who also heads of a private sector association,



Liamine Zeroual: peace hopes after election victory

says Islamic groups targeted public sector enterprises more than the private sector, which was instead asked to pay up for protection. His main criticism is reserved for an administration which he said is used to benefitting from state control over resources and afraid to lose its privileges should the private sector be allowed to flourish.

To fulfil the aspirations invested in him, Mr Zeroual will have to break away from the various competing interests that helped him get elected: the unions, the army and parts of the administration.

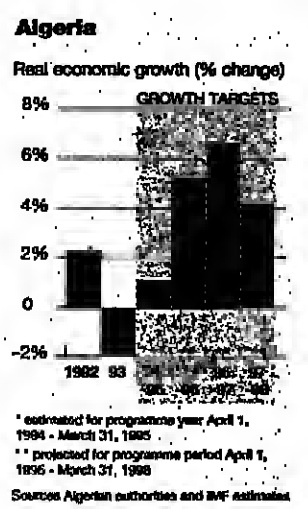
Algeria is saddled with a debt of nearly \$30bn (£19bn)

and relies on hydrocarbons for 95 per cent of foreign exchange revenues. The economy has managed to survive over the last two years because of debt reschedulings and an International Monetary Fund aid programme which liberalised prices and imports, reduced subsidies and led to stricter fiscal discipline.

Gross domestic product growth outside the energy sector will reach its target of over 5 per cent this year, according to Mr Abdelouahab Keramech, the central bank governor. But a reduction in oil revenues will lead to total real growth of 3.5 per cent, up from zero per cent in 1994 but short of the IMF target. And inflation, targeted by the IMF for 1995/1996 at 10.3 per cent, is running at over 10 per cent.

If IMF reforms are to translate into sustained growth, the private sector must assume a much larger role and attract foreign funds to take up part of the production from state enterprises that run at only 50 per cent capacity. Industrial production this year will register negative growth of 1 per cent.

Until the 1980s, Algeria's socialist policies stifled the emergence of a private sector - "we were looked upon like drug dealers," says one entrepreneur. Today, the private sector accounts for about 35 per cent of production, mainly in services, construction and



agribusiness, although its share of industrial production is less than 15 per cent of the total.

The sector is made up for the most part of small enterprises employing between 10 and 50 people. What these numbers do not show, however, is a thriving unofficial sector, which, with the IMF liberalisation of trade, is becoming partly legalised.

Unemployment in Algeria officially stands at around 25 per cent, and is said to reach 60 per cent among the young. But many admit that with average monthly salaries of 6,500 dinars (\$82), *trabendo* (smuggling) can be more fruitful than holding a full-time job. One young man

says bringing in T-shirts from France once a year can produce more profit than a job all year round.

The civil strife has hurt the business but the smugglers are adapting. With visas now almost impossible to obtain for traditional markets in Europe, they have been turning to far eastern markets. The private sector is stacking up requests to start production operations and businesses as soon as stability returns. The first private sector bank - Union Bank - partly owned by a former central bank governor began operations in Algiers this year. Mr Hassani complains that the private sector is being hampered by the devaluation of the dinar, which slid from 26 dinars to the dollar in 1994 to 51 dinars today. With eroded purchasing power, the increase in production costs cannot be passed on to consumers, he says.

Traders and speculators, however, have taken advantage of the opening of the economy to turn the country into a bazaar with grocery store shelves filled with goods most people cannot afford to buy. Earlier this year, imports of bananas flooded the market until the imposition of a 50 per cent tax. Importers have now turned to other superfluous food products - imported yogurt for instance.

Roula Khalaf

Pakistan to cut spending

By Farhan Bokhari in Islamabad

Pakistan will cut government expenditure and mobilise more revenues from taxes to meet the conditions attached to a \$600m IMF standby loan agreed in Washington last week.

Mr V.A. Jaffarey, the prime minister's adviser on finance, said at the weekend that the deficit target would be cut from 5 per cent of the GDP to 4.6 per cent by generating more revenues and cutting non-development expenditure. He did not specify from where the cuts would come.

The proposed cuts come at a time of continuing concerns over the recent performance of Pakistan's economy.

The government of Ms Benazir Bhutto devalued the rupee, raised domestic fuel prices and imposed new duties on imports last month to halt falling exports and to improve foreign exchange reserves.

The weekend decision to announce cuts suggested that those measures were not enough to satisfy fund officials. Pakistan wants to improve international investor confidence by restoring an IMF programme which came to a halt towards the end of last year after Islamabad failed to meet its performance targets.

Mr Jaffarey also said there was no basis for fears that the government would devalue the rupee further or reverse its policy of allowing foreign exchange accounts at local banks.

Castro makes belated pilgrimage to Beijing

By Tony Walker in Beijing

President Fidel Castro will make a belated pilgrimage to China this week, 37 years after turning the Caribbean island into a communist state.

Mr Castro, whose island-state was firmly wedded to the former Soviet Union for the first three decades of his rule, is now obliged to seek friends wherever he can find them among the world's remaining nominally communist states.

Adding poignancy to Mr Castro's presence in China this week - the Cuban leader arrives on Wednesday - is the concurrent visit of Mr Do Muoi, the general secretary of the Communist Party of Vietnam, who arrived yesterday at the start of a six-day visit.

Both Cuba and Vietnam have been at odds with China over the years, but changing times and the shrinking of the communist world have brought strange bedfellows together. The missing piece in this week's gathering is Mr Kim Jong Il of North Korea, the supreme leader to the late Kim Il Sung.

In a way, the presence of both Mr Castro and Mr Do in Beijing is an acknowledgement of China's leadership of what is left of the communist brotherhood.

While Beijing resists this role, its gradual economic reforms described in party propaganda as "socialism with Chinese characteristics" are providing a model for both Cuba and Vietnam.

The Cuban leader, in recent speeches that seek to wean

Cuba slowly from the destructive state control of a previous era, has lauded the Chinese experiment while castigating the former Soviet Union's "disastrous" embrace of capitalism.

In July, Mr Castro, in a state-of-the-nation speech, said Cuba was willing to adopt reforms that include "unquestionable elements of capitalism", but defiant to the end, he rejected any abandonment of socialism.

"The disasters that have happened in the countries of the former Soviet Union... compared to the impressive successes of China and Vietnam, clearly indicate what can and what cannot be done if one wants to save the revolution and socialism," he said.

In Beijing this week, Mr Castro will have ample opportunity to learn at first hand of China's economic achievements in meetings with its President Jiang Zemin, premier Li Peng and a host of other officials.

He will also be able to observe during a 10-day stay the changes sweeping the country. Chinese officials have made it clear that economic issues would figure prominently in the discussions. Mr Shen Chunfang, a foreign ministry spokesman, said last week that Mr Castro would discuss a "wide range of bilateral issues, focusing in particular on economic development."

Mr Shen discounted, however, the possibility of a "trilateral meeting" between Mr Castro, Mr Jiang of China and Mr Do of Vietnam.

Cuba will be seeking additional Chinese technical aid to help in its economic transformation. It will no doubt also be pressing China to increase imports of such items as sugar to help its impoverished economy. In 1994, two-way trade amounted to roughly a paltry \$20m.

Mr Castro will also be seeking to demonstrate by using Beijing as a platform that US attempts to isolate him and his country are proving unsuccessful. His visit to China is part of a wider attempt to achieve greater visibility on the world stage.

The Cuban leader's presence in China will be the culmination of a steady warming of relations between Beijing and Havana, marked by increasingly frequent exchanges between senior officials.

President Jiang visited Havana for 20 hours in November last year after meeting President Bill Clinton in Seattle at a gathering of the Asia and Pacific Economic Co-operation forum.

Premier Li was in Cuba last month to be greeted with a bear-hug by Mr Castro himself at Havana airport.

Other senior Chinese officials have also been in Cuba recently, including Mr Qian Qichen, the foreign minister, and Mr Li Ruihan, a member of the standing committee of the ruling politburo.

Cuba has been increasingly supportive of China in international forums such as the United Nations on various issues, including human rights.

INTERNATIONAL NEWS DIGEST

Europe builds ties with Burma

Several European countries, including the UK, France and Germany, are promoting trade and investment with Burma, despite official EU and UN condemnation of the regime's poor human rights record.

The UK government has appointed new staff to its Rangoon embassy to deal with increasing interest in Burma shown by British companies. UK companies are now eligible for financial assistance to participate in official trade missions to Burma. The UK is the sixth largest foreign investor in Burma with nearly \$70m of actual investment.

The French government has been helping oil company Total with its \$1.2bn gas pipeline project from the Andaman Sea to Thailand and Germany is considering the resumption of official loans to assist German companies competing for Burmese government contracts and concessions, according to Burmese officials.

The increased activity follows the release of democracy activist and Nobel laureate Aung San Sun Kyi in July after nearly six years of house arrest. At the weekend she urged foreign investors to proceed cautiously and to consider only investments that will benefit the Burmese people rather than help the regime.

Ted Bardacke, Rangoon

Japan may step up recycling

Japan's Health and Welfare Ministry is contemplating forcing manufacturers to collect and recycle discarded cars, television sets, refrigerators and other used household appliances by the turn of the century, ministry sources said yesterday.

This would be the second step in the government's efforts to reduce waste, following planned introduction of compulsory packaging recycling from fiscal 1997. Japan suffers from a shortage of rubbish treatment plants and soaring waste disposal costs.

The ministry is negotiating with the Ministry of International Trade and Industry and industrial groups about setting up a car and electric appliance recycling system. A panel of experts - commissioned by the health ministry to study ways to reduce waste - will soon set up a special study group on cars and household appliances. The panel is expected to report on forced recycling by June next year based on German and Austrian experience.

Kyodo, Tokyo

Sumitomo invests in Vietnam

Sumitomo of Japan plans to invest more than \$100m in an industrial park outside Hanoi, the semi-official weekly Vietnam Investment Review reported yesterday.

The park would be built on a 300-hectare site in Dong Anh district, some 10 km from Hanoi's main airport, according to Sumitomo deputy general manager Katsumi Kurita. Talks were under way with the municipal authorities and a deal could be signed by the end of the year.

A plan launched by Vietnam in the early 1990s to attract foreign investors into export processing zones has met with little success. The government this year started promoting industrial parks instead. Unlike export processing zones, these allow foreign investors to sell what they manufacture on the domestic market.

Jeremy Grant, Hanoi

Jets pound Afghan capital

Jets belonging to opposition Islamic Taleban militia yesterday bombed the Afghan capital Kabul, killing at least 23 people and wounding 120, hospital and ambulance officials said. Eight bombs, including cluster and parachute bombs, were dropped on residential areas of the besieged capital by an unspecified number of jets.

Earlier, a government spokesman blamed the bombing on Taleban, which seeks to topple President Burhanuddin Rabbani. He said two of the bombs were parachute bombs and two others cluster bombs designed to damage buildings.

The attack came a day after the Defence Ministry said government forces had captured three strategic mountain positions east of Kabul in attacks on Taleban. Taleban has rejected the latest United Nations proposals for a multi-factional council to replace the government and pledged to occupy Kabul by force.

Reuters, Kabul

Ivory Coast goes to polls

Ivorians yesterday voted in their second multi-party general election, with the main opposition back in the fray after a turbulent presidential poll boycott and hoping to break the ruling party's post-independence monopoly on power.

Witnesses and officials said polling for parliamentary seats appeared to pass off peacefully. This contrasted with the October 22 presidential election, which ruling Democratic Party leader Henri Konan Bedie won in the face of an opposition boycott and political and ethnic clashes that killed at least 35 people.

But supporters of opposition parties had problems getting special voting papers or finding their names on voter lists. Over 650 candidates from 29 parties are contesting 172 of the 176 seats in the national assembly. The opposition previously held just 17 seats. Ivory Coast, the world's leading cocoa producer, is banking on a reputation for stability to boost investment and economic revival.

Reuters, Abidjan

Pay rise for Zimbabwe leaders

Zimbabwe has more than doubled the salaries of its government leaders, including President Robert Mugabe and his two deputies.

Mr Mugabe's annual salary and allowances rise to \$245,000 (\$40,165) next July from \$215,000 in July this year, while those of vice-presidents Joshua Nkomo and Simon Muzenda go up to \$239,000 from \$215,000, according to a government gazette published at the weekend.

Cabinet ministers and members of parliament will also receive large salary increases.

The announcement came days after civil servants sued the government for scrapping their end-of-year annual bonuses under a scheme aimed at cutting state spending, currently consuming about 40 per cent of gross domestic product and blamed for slowing economic growth.

Reuters, Harare

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FINANCIAL TIMES

مكتبة الامم المتحدة

Pressure mounts for Iraqi climb-down on oil

By James Whittington in Cairo

Iraq is facing increasing pressure to accept a United Nations offer of a limited oil sale to pay for food and humanitarian supplies. Much to the relief of the world's main oil producers, already suffering from a glut, the Iraqi government has repeatedly rejected a UN resolution which would allow the sale of up to \$2bn (£1.3bn) of oil over six months.

However, the reduced likelihood of an imminent lifting of sanctions -

following the revelations by key members of President Saddam Hussein's family who defected in August - and the decline of the humanitarian situation inside Iraq, has led to international and domestic support for a limited sale to help alleviate the suffering of the Iraqi people.

Baghdad has complained that the strict terms of supervision governing distribution of revenues generated from the proposed oil sale would infringe its sovereignty. But diplomats say there is an internal dispute

over how long the government can maintain this position in the face of increasing domestic difficulties.

A recent report by the UN's Food and Agriculture Organisation brings these problems into sharp focus. It says that after five years of sanctions, following the Gulf war, the nutritional state of Iraq's children has declined to that of a less-developed country - on a par with Mali, Ghana and the Congo.

Last week, in his most blunt attack yet on the Iraqi government,

Mr Max van der Stoep, who has completed a damning report on Iraq for the UN Human Rights Commission, accused the regime of holding its own people hostage by refusing to sell oil under UN supervision to buy humanitarian supplies.

Diplomats say that irritation over the extent of Iraq's military programme has also prompted some nations - such as France, Russia and the Arab League, which had earlier supported Iraq in its campaign to have a complete lifting of sanc-

tions - to apply whatever pressure they can on Baghdad to accept the limited oil sale.

Faced with the problems of maintaining quota discipline in an already soft market, most members of the Organisation of Petroleum Exporting Countries (Opec), which met in Vienna last week, are concerned about Iraq succumbing to the increased pressure. If Baghdad agrees to the sale, analysts expect a sharp drop in the price of oil - which is already languishing at less

than \$17 a barrel - and an urgent Opec review of last week's decision to freeze oil output at 24.52m barrels a day.

One analyst estimates that the sale of \$2bn worth of oil would add a further \$30,000 h/d to world markets which, he says, would force Opec into the difficult position of trying to agree co-ordinated cutbacks.

Under an Opec agreement in 1983, Iraq is allocated a small quota of 400,000 b/d to cover domestic consumption and oil exports to Jordan.

Salinas' brother faces growing list of charges

By Leslie Crawford in Mexico City

The controversy surrounding Mexico's former ruling family deepened yesterday after Mr Raúl Salinas, elder brother of ex-president Carlos Salinas, was told by federal prosecutors that he faced charges of forgery and illicit enrichment, on top of the murder charges which have kept him in jail since February.

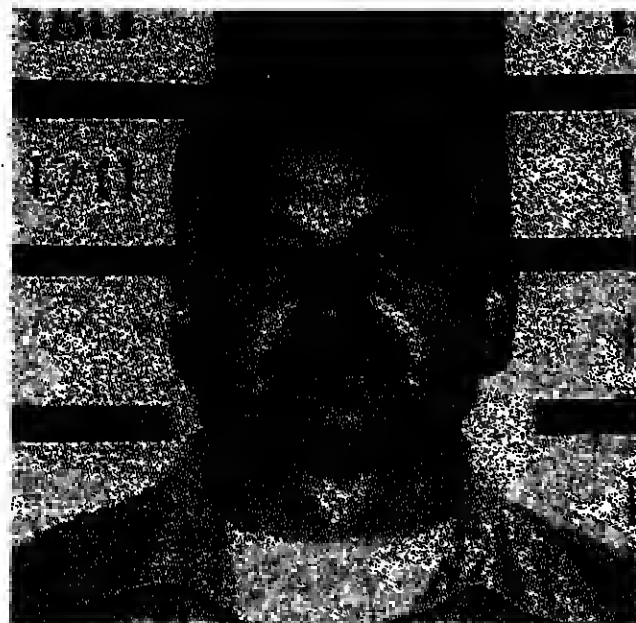
Mr Raúl Salinas published advertisements in Mexico City's main newspapers at the weekend protesting his innocence, saying he could prove the lawful origin of his wealth.

Under Mexican law he has 10 days to do so. A civil servant since 1982, Mr Raúl Salinas's patrimony includes 39 properties in Mexico as well as \$54m (£5.1m) in Swiss bank accounts deposited under a false name, according to police in Bern. Mr Raúl Salinas' wife, Paulina Castañón, was arrested in Geneva this month as she tried to withdraw the contents of these accounts with her husband's forged identity papers.

Police in Switzerland said on Friday that she was being held in connection with an investigation into a drug trafficking and money laundering ring. It is the first time a member of Mexico's political elite has been investigated for alleged ties to drug money.

In Mexico, however, the Attorney-General's Office said it had no evidence that Mr Raúl Salinas' wealth derived from drugs.

Although the Mexican press



Raúl Salinas, pictured in a police mug shot released earlier this year after being charged with murder

has sought to link Mr Raúl Salinas' alleged misdeeds to his brother Carlos, President Ernesto Zedillo has refrained from accusing his predecessor of any wrongdoing.

Mr Carlos Salinas left Mexico in March after a public row with Mr Zedillo over who held responsibility for the disastrous devaluation of the peso in December and the country's subsequent economic collapse. The former president's whereabouts are unknown.

At a time of great hardship for the vast majority of Mexicans, revelations of the vast

wealth of the Salinas family is an embarrassment to Mr Zedillo, who was hand-picked by Mr Carlos Salinas to succeed him last December. Mr Zedillo has been at pains to dissociate himself from the Salinas administration, a government in which he and most of his cabinet served.

In several speeches at the weekend, Mr Zedillo warned that justice would fall heavily on "those who, from a position of power or privilege, commit crimes against our country". He said there would be no "untouchables" in Mexico.

Regulator warns US banks on bonuses

By Richard Waters in New York

A US banking regulator has sent a shot across the bow of the country's banks regarding the size of the bonuses they pay to derivatives and other traders.

The move has been prompted by the heavy losses suffered this year by both Barings and Daiwa Bank, which were caused by the actions of single traders who ran up \$1bn (£640m) losses.

The Office of the Comptroller of the Currency, which oversees nationally chartered US banks, plans to issue guidance in the coming weeks dealing with the way they reward traders. The guidance, first disclosed by an OCC official at a conference in London a week ago, has already aroused concern among some banks, who fear the regulators may be trying to limit the size of the bonuses they pay.

Mr Doug Harris, the OCC's deputy comptroller for capital markets, denied the aim was to restrict bonuses, or that the regulatory body was interfering with issues which should be left to a bank's management.

The aim was to encourage banks to think more carefully about how their compensation systems affected the risks that an institution ran. "If a trader made \$1m, did he do it by putting \$2m at risk? Or did he bet the bank?" he said.

INTERNATIONAL PRESS REVIEW

ARGENTINA

By David Pilling

Most Argentine newspapers dismissed with a cursory paragraph or two suggestions that Princess Diana's visit to their country last week had any political importance, but this did not deter them from having a field day with an event full of colour and controversy.

La Nación, the newspaper of record, carried a report headlined "The truth behind the visit" in which statements by Argentine cabinet officials that Princess Diana's presence helped the cause of Anglo-Argentine relations were treated as humbug. The real purpose was to provide the princess, ostracised from the British royal family, with a "test of fire" to see whether she was up to the new role she aspired to as a roving ambassador for her country, the paper said.

The Princess of Wales had "bet her personal and political future on the success of her visit to Argentina and she will not permit anything or anybody to make it fail".

But, as most newspapers gleefully reported, there were indeed many trials and tribulations. Widely covered was Princess Diana's encounter with the diminutive but feisty Mrs Lucia Mastroianni, whose 25-year-old son was one of 300 Argentines killed when a British submarine sank the Gen-

eral Belgrano during the 1982 Falklands conflict.

As the Princess arrived for an engagement at the Angel Roffo hospital, the 75-year-old mother made her way into the area reserved for journalists. Asked by one correspondent what she was up to, she replied cheerfully: "I'm here to insult the princess."

And insult her she did. *Clarín*, Argentina's best selling daily, reported that she "broke the calm atmosphere" by "firing a string of unrepeatable insults" at the passing dignitary. Other papers judged there to be nothing unrepeatable in Mrs Mastroianni's vocabulary which made its way - in large print at that - on to the pages of most newspapers.

The tabloid *Cronica*, whose main story was headlined "Insults and rejection for the pirate princess", also carried an article on the reaction of the veterans' association to her visit. The association groups some of the 12,000 former combatants in the 1982 conflict.

"Her visit is intended to create a smokescreen to obscure the real issue between the two countries, that of the sovereignty of our Malvinas Islands, and the exploitation of our natural resources in the south Atlantic, such as oil and fish," the association said.

Princess Diana, referred to unkindly in some reports as "Princess Bulimia" and "Princess Diet", did not get a

rough ride from all sections of the press.

Despite an "agitated" day, "Princess Diana was never anything but elegant and sympathetic" in her "pink Chanel suit, with matching blue suede shoes and handbag," said *La Nación*. After her hectic schedule, *Clarín* reported she "departed for the embassy, without the least sign of fatigue blemishing her face".

The most acerbic report came in *Página 12*, the left-wing daily which used the occasion of Princess Diana's lunch at the presidential palace to poke fun at what it regards as the frivolous lifestyle of President Carlos Menem and his entourage.

Talk at the table was dominated by the theme of poverty and "hunger in Africa", the report said, which went on to describe the sumptuous menu.

Página 12 listed the great, the good and the hangers-on who attended the lunch, commenting that "all the officials came with their wives". As if in afterthought and in reference to Mr Menem's marital difficulties, it added: "Well, all those apart from Carlos Menem and Princess Diana, for obvious reasons."

The two, however, did not mention failed marriages, the report concluded. "Neither did they talk about the Malvinas, nor about infidelities. Just about poor people."

Venezuela considers exchange rate shift

By Stephen Fidler in Caracas

Venezuela will shift to a unified market-determined exchange rate in the near future and has identified ways to limit its budget deficit to 3 per cent of gross domestic product next year, the country's finance minister said.

With speculation rife in Caracas that a devaluation of the bolívar was imminent, Mr Luis Matos Azocar said the government had decided not to take any action on the exchange rate that would contradict an agreement being negotiated with the International Monetary Fund. "We are holding a very positive conversation with the IMF," the minister said.

Venezuela has had exchange controls and an exchange rate fixed at 170 against the dollar since June 1994, despite an inflation rate of 50-60 per cent. "We are considering an orderly way to be able to lift the exchange controls by the first quarter of 1996," Mr Matos said in an interview.

The bolívar was trading at about 330 to the dollar last week in the so-called Brady market, where a kind of market-determined exchange rate is established through the trading of Venezuela's Brady bonds. However, Mr Matos said that rate exaggerated the bolívar's weakness, because the market was small.

The minister said he believed the government was close to agreeing with the IMF on the 3 per cent figure for the overall public sector deficit in 1996, which would compare with 7 per cent on the basis of unchanged policies. These figures were prior to any revenues from planned sell-offs.

Previously, the government had said the deficit would be cut to 4 per cent of GDP next year. The minister said calculations on this year's deficit had yet to be finalised, although private economists estimate that the deficit - on a consolidated cash basis which may not be directly comparable with the 3 per cent figure - could exceed 10 per cent.



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NEWS: UK

Hopes fade for Ireland summit

By Robert Peston,
Political Editor

The British government has abandoned hope of an Anglo-Irish summit on the Northern Ireland peace process before the arrival of US President Bill Clinton on Wednesday.

A weekend of frantic diplomatic activity between Dublin and London failed to resolve the outstanding issues, though Mr John Major, the British prime minister, will today again phone his Irish counterpart, Mr John Bruton.

British officials denied that the peace process had reached an impasse, though acknowledged that progress had been reduced to "a snail's pace".

Mr Major wrote to Mr Bruton over the weekend expressing

his disappointment at the difficulties in reaching agreement. However, one British official said that the gap between the Irish and British governments was "tantalisingly close".

Mr Dick Spring, the deputy Irish prime minister, played down expectations that Mr Clinton would be able to resolve the deadlock. "I don't think President Clinton has any tricks up his sleeve", he said.

Mr Spring told Irish radio, "He is not coming in that light, and it would be very unfair if either government expected him to offer the solution in the context of our present dilemma."

Agreement between London and Dublin has for the past few days been close on a form of words to be issued after any summit on the "twin-track"

strategy for future talks. There is a remote possibility that the governments could issue such a statement before the arrival of President Clinton without a formal summit taking place.

The twin-track approach involves creating an international body to look primarily at "decommissioning" paramilitary weapons at the same time as the start of preliminary talks involving Northern Ireland's main political parties and both governments.

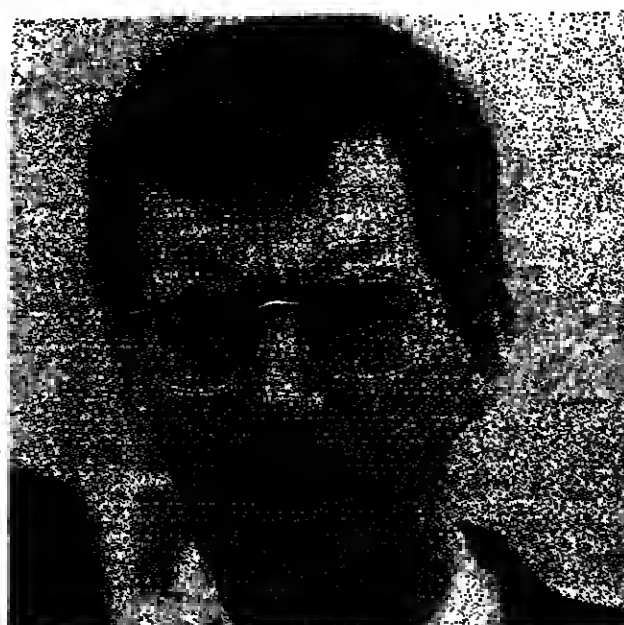
Standing in the way of Anglo-Irish agreement is the nationalist Sinn Féin party's reluctance to yield to the British government's demand that the IRA must give up some military equipment before it can enter into the talks. The Irish government is reluctant

to launch the twin-track process unless it is confident of Sinn Féin's participation.

Mr Gerry Adams, the Sinn Féin president, repeated that there was little prospect of the IRA making a gesture of handing over weapons. "None of the armed groups are going to disarm unilaterally or as part of a precondition [to all party talks]", he said.

Mr Patrick Maybaw, chief Northern Ireland minister in the British government, made clear that the British government would not soften on this point.

Sinn Féin wants the timing of any arms surrender to be discussed by the international commission which would be chaired by Mr George Mitchell, a senior Clinton aide.



Dick Spring, the Irish deputy premier, does not think President Clinton "has any tricks up his sleeve" for ending the deadlock.

Row over steel subsidy edges towards agreement

By Stefan Wagstyl,
Industrial Editor

The UK and the Republic of Ireland are edging towards agreement in an awkward dispute about plans to support the republic's only steel mill with state aid.

British and Irish officials said the governments made progress in talks in London last week between Mr Richard Bruton, the republic's minister for enterprise and employment, and Mr Tim Eggar, the

UK industry minister. But significant differences remained over the conditions under which aid could be granted by the republic's government officials said.

Further talks are planned for this week in the hope of ending the dispute soon to avoid the danger of casting a shadow over Anglo-Irish relations at a critical time in the Northern Ireland peace process.

Dublin is seeking to persuade London to drop objections to an aid plan for Irish Steel which involves

subsidies of IR£27m (\$40.7m).

The Irish government wants to refinance the loss-making state-owned plant before selling it for a nominal IR£1 to Ispat International, an Indian-owned steel group. Under EU rules the aid cannot be granted without the agreement of all member states.

The UK and Luxembourg have blocked the deal on the grounds that aid is unfair and will harm other steel producers.

British Steel, the UK producer,

raised the stakes earlier this month when it said that if the Irish aid plan went ahead it would probably have to close a plant at Shelton in Staffordshire, with the loss of 400 jobs at the plant and 800 at suppliers.

Irish officials say this exaggerates the possible impact of Irish production on Shelton, since two plants mostly produce different types of steel. They add that Irish Steel, which employs 330 and has a capacity of 450,000 tonnes a year, has less than 5 per cent of the EU market and so

has little effect on other producers.

The negotiations between the two governments focus on the size of a proposed output ceiling to be placed on Irish Steel and on limits on the types of steel to be produced and the destination of exports.

While the gap between Dublin and London has narrowed it remains significant in the eyes of British officials, who said that even a small difference in Irish Steel's planned output could have an impact on the market.

Unions claim concession by GM Rolling tax cuts set to feature in 'cautious' Budget

By our Employment Editor

General Motors of the US appears to have bowed to pressure from European labour unions in a dispute over representation.

The company may have agreed to accept that full-time trade union officials will be able to participate on the company's proposed European-wide consultative works council covering all its employees in Europe, including the 11,000 at its UK subsidiary Vauxhall.

Earlier this year the company said it wanted to establish an employee consultation forum but without any direct role for the trade unions.

GM's conciliatory move promises to pave the way for

negotiations to start shortly between the US auto giant and the European trade unions, including those in the UK.

"The company has removed the logjam", said Mr Tony Woodley, the TGWU transport union's UK national officer for the car industry yesterday. Mr Paul Davies, GM Europe's industrial relations director in Zurich, would say only that there had been a "positive exchange of views" between the company and union leaders from the TGWU and the German Metalworkers.

He added: "We are looking for a constructive way forward. Our aim is to achieve a voluntary agreement on a consultative forum by next September."

Companies are free to negoti-

ate works councils in the way that best suits their needs before September 22 next year, when the European Union directive is transposed into domestic law except in the UK.

This requires all companies employing more than 1,000 workers with at least 150 of them in two or more EU member states to create consultation and information committees for their employees. Legally UK workers are excluded as a result of the UK opt-out from the 1991 Maastricht treaty although in practice most are being covered by the proposed works councils.

Last June it was revealed that GM had decided to go ahead and establish a consultative works council for all their

European employees. But the company wanted to keep out full-time union officials. Unions working through the Geneva-based European Metalworkers Federation refused to accept such a pre-condition.

Most manual workers in the UK work a 39-hour basic working week, four hours more than the norm for white-collar staff, according to the annual study of hours and holidays published today by Incomes Data Services, the independent UK research organisation.

Unions at Ford and GM are pressing both companies for a reduction of two hours in the working week as part of a new two-year wage agreement, but neither company has agreed to any cut.

tomorrow to pre-empt possible disappointment within his party at the limited reductions he will unveil for next year.

The 20p in the pound basic rate of income tax is unlikely to be reduced by more than 1p for 1996-97, in a net package of tax reductions worth around £3bn (\$4.5bn). "This will be a cautious Budget without any fireworks", said a senior minister. However, Mr Clarke will indicate how the government intends over a period of years to cut the rate to 20p in the pound, based on long-term public expenditure reductions, some of which have already been agreed.

A senior minister said last night that the impact of the Budget would be "increasingly apparent over time", and that spending cuts would be translated into future income tax reductions.

However, the government is unlikely to legislate in the Finance Act for these future tax cuts, for fear of upsetting financial markets.

A clear indication is also given this morning by the prime minister that no inflationary risks will be taken in the Budget.

Other Budget measures are likely to include a raising of the threshold at which inheritance tax is payable and an increase in the married couple's allowance, to please the powerful pro-family lobby in the Conservative party.

By Norma Cohen,
Investments Correspondent

The board of the London Stock Exchange is to consider plans for a radical shake-up of UK share trading at a meeting on Thursday, having rejected a similar scheme two months ago.

The plan, supported by the exchange's executive, would create a so-called hybrid market for trading in the shares of the UK's 350 largest companies.

Although the move is opposed by some of the exchange's largest and most influential members, it is supported by many others, particularly US and European firms which use alternative systems in their domestic markets.

Recently, Mr Michael Lawrence, the exchange's chief executive, made an impassioned plea for London to accept the fact that investors wanted choice.

"No market ever provides a single method of trading," Mr Lawrence said in an address to City legal advisers. "We have to reposition the exchange to maximise its potential in an increasingly competitive world."

The exchange currently offers a "quote-driven" system under which marketmakers display the best price at which

they will buy or sell shares of a given company on an electronic bulletin board. Those wishing to trade use the telephone to strike a bargain for the desired number of shares and their appropriate prices.

However, a rival to the exchange, Tradepoint, is offering an "order-driven" system in which users display the number of shares and the price at which those are available for purchase or sale and bargains are struck electronically.

On the London Stock Exchange, only shares in the

smallest companies are traded via an order-matching system. The exchange's plan would create a hybrid - allowing both quote and order-driven trading even in the most liquid stocks via the new Sequence VI trading platform which will become available next July.

London's largest marketmakers, who put their own capital at risk to buy and sell shares throughout all market conditions, oppose the move because they say it will allow their competitors to move prices against them.

UK NEWS DIGEST

Rail information system hampered by funding rivalry

Plans for a radical improvement to passenger information systems on Britain's railways have been bogged down by rivalry between the different organisations involved and uncertainty over funding, rail officials close to the project say.

The Informed Traveller initiative, launched with the backing of prime minister John Major, could boost revenues on the railway by hundreds of millions of pounds, according to a leading passenger watchdog. It could help repair the railway's poor image caused by the inadequacy of its existing telephone information systems. British Rail, which owns the national network, has been working on the initiative for the past year and is expected to announce details of the progress made to the Central Rail Users' Consultative Committee, representing passenger interests, at its next meeting on December 6.

But it is still uncertain which organisation would fund the project - the train operating companies, Railtrack or British Rail. Ideally, the scheme should be run by the Association of Train Operating Companies, which groups the 25 train operators, but this is still an embryonic organisation without resources of its own, according to officials involved in the project. The effect has been to leave preparations to British Rail but some participants accuse BR of failing to give a high enough priority to the scheme.

BR has been trying to decide whether it should do the work or contract it out. The scheme would involve computerised information systems to provide travellers with up to date information on train timetables, delays to scheduled services and fares. Information would be available on station platforms, on trains, and through telephones or computer links to travellers at home. The cost could run into millions of pounds.

Charles Batchelor, Transport Correspondent

Labour advised to borrow £20bn

An incoming Labour government should look to spend £20bn a year more than it raises in taxes during the course of the next parliament, according to the Institute for Public Policy Research, the soft-left think-tank.

Mr Dan Corry, the IPPR's senior economist, and Mr Gerald Hollman, its director, argue that this target for borrowing - which is above the Treasury's current projections - would raise public debt as a proportion of national income by five percentage points to between 53 per cent and 54 per cent. "There is a large backlog of public investments in education and so on that are necessary and could justify a one-off rise in the ratio," they say.

In a new pamphlet they also recommend that the government's inflation targets should be replaced with a 4 per cent to 7 per cent target for annual growth in the cash value of national spending. They also favour "clear co-ordination of monetary and fiscal policy which precludes monetary policy from being determined by a Bank that independently sets its own targets".

Robert Chote, Economics Editor

Cadbury Schweppes tops poll

Cadbury Schweppes, the confectionery and soft drinks manufacturer, is Britain's most admired company according to a survey published by the magazine Management Today. Based on the views of top executives of the country's 10 largest companies in 25 industrial sectors, as well as analysts' opinions, the 1995 poll put the food group Unilever in second position and awarded Top Five rankings to Smiths Industries, Tesco and Whitbread.

At the other end of the scale, Trafalgar House in 250th place is Britain's least admired company with the lowest ever score for the quality of management. Eurotunnel was in penultimate place.

Tim Dickinson

Postal staff back to work

Postal workers across Scotland were last night returning to work after two mass meetings in Edinburgh and Glasgow yesterday voted to support an agreement between Royal Mail managers and union officials. The 14-point plan includes the promise of a UK-wide review of arrangements for the provision of delivery services. Talks between the two sides are set to continue until the middle of January.

Royal Mail predict it will take most of the week to clear the 12m letters and packages which have accumulated in delivery offices across the country since the unofficial strike began last Monday. Around 5,500 staff had joined the strike, sparked by a change in working practices at Portobello delivery office, outside Edinburgh.

PA News

Hi-tech jobs for N Ireland

The British government is set to announce 900 more new jobs for Northern Ireland, more than half of them created by USA companies investing in the province for the first time since the Irish Republican Army's ceasefire.

More than 300 are jobs going to Londonderry where US-owned computer company Stream International is to be established. It is one of four greenfield inward investment projects to be announced today and tomorrow. The second involves another US company and the two others are from the Irish Republic. Last week, more than 1,800 extra jobs were confirmed in the province.

PA News

Trading plan would create a 'hybrid' market in largest companies

Exchange weighs radical shake-up

By Norma Cohen,
Investments Correspondent

Executives from Easdaq, the pan-European stock exchange which plans to launch next year, will this week begin marketing the institution to more potential shareholders, *Christoph Price writes*.

The move follows agreement of a business plan, which forecasts pre-launch losses of £2.4m (\$3.1m), and cumulative losses to the first three years of operation of £26.2m. By year five, the exchange forecasts annual profits of £5579,000.

The aim of the marketing is to raise around £100m to cover the start-up and initial losses. The new market envisages having 50 companies in its first year of operation, growing to 500 after five years.

Easdaq is hoping to replicate the success of Nasdaq in the US, which has attracted hundreds of members, particularly from young, fast growing high-technology groups. The US market currently holds a 5 per cent stake in Easdaq and is providing advice to the European venture.

They will buy or sell shares of a given company on an electronic bulletin board. Those wishing to trade use the telephone to strike a bargain for the desired number of shares and their appropriate prices.

However, a rival to the exchange, Tradepoint, is offering an "order-driven" system in which users display the number of shares and the price at which those are available for purchase or sale and bargains are struck electronically.

On the London Stock Exchange, only shares in the smallest companies are traded via an order-matching system. The exchange's plan would create a hybrid - allowing both quote and order-driven trading even in the most liquid stocks via the new Sequence VI trading platform which will become available next July.

London's largest marketmakers, who put their own capital at risk to buy and sell shares throughout all market conditions, oppose the move because they say it will allow their competitors to move prices against them.

The links between the two exchanges will be strengthened by a dual listing facility. The European market estimates that at least 25 Nasdaq stocks will take the dual option, particularly European companies which have failed to attract investor support in their own countries of operation, such as cable groups in the UK.

Easdaq raised £10m earlier this year to fund the early development of the system. Since then, membership of the associated European Association of Securities Dealers has grown to 67. Agreement has also been reached with the International Securities Market Association (ISMA), which will build the Easdaq trading system and operate it alongside their existing trade confirmation system, Trax.

It is linked to the European settlement organisations Euroclear and Cedel.

A draft rule book, admission requirements and technical specifications have all been completed. Providing it receives regulatory approval, Easdaq hopes to open for trading in the fourth quarter of 1996.

They point to the relative paucity of trades on Tradepoint - to which many marketmakers have subscribed - as evidence of the lack of investor interest in alternative systems.

However, other smaller marketmakers and investment banks say they have shunned Tradepoint because it is available to institutional investors who are their customers. They say they would much prefer the exchange to develop its own order-matching system which would be for use exclusively by intermediaries.

Net gain.

WWW.FT.com

سكاي نيوز

Chirac prescribes a bitter pill

My Paris barber recently recounted to me an example of waste in the French health system. In clearing out the apartment of a late parents-in-law, who had died within months of each other, he and his wife had filled three big garbage bags with unused drugs and medicines - which he then threw away.

A few years back, Bernard Kouchner, who doubled as the Socialist minister of health and of humanitarian aid, introduced a scheme to encourage pharmacists to take back unused drugs so they could be sent to drug-needy countries.

But the idea lapsed with Kouchner's departure. The government of Edouard Balladur then tried, with some success, to go more to the root of the problem by threatening to penalise pharmaceutical companies for over-promoting drugs and doctors for over-prescribing them.

However, Balladur was defeated for the presidency by Jacques Chirac, who derided his fellow Gaullist opponent for taking an "accountants' view of health and for threatening to "ration" medical care. One of Chirac's most successful campaign lines was to recall that French medical advances had increased life expectancy

by an average of one year in every four years that passed. "You see that in the hour that I've been talking to you, you've gained an extra 15 minutes of life." Audiences loved it, especially any doctors present.

Now the tables are completely reversed. To stem the social security deficit, Chirac is backing reforms by his prime minister, Alain Juppé. These will raise some health insurance charges, impose spending controls on pharmaceutical companies' sales, doctors' prescriptions and hospital operations, and demand a financial contribution from doctors and drug companies to help close the social security deficit.

Of France's medical extravagance, there is no doubt. The French spend much of their wealth on health - 10.5 per cent of their GDP. Internationally, this puts them in third position behind the US, the unquestioned gold medal holder, and Canada, although it is only a fairly recent

DATELINE

Paris: persuading the French to take less medicine may prove a headache, writes David Buchan

sprint that has gained France its bronze in 1980 it ranked only 7th in the world health spending league.

But France is no more the world's third healthiest nation than America is its healthiest. True, French women last longer now-

the way extremes of expertise and ignorance co-exist. France's Pasteur and Merieux institutes may be world leaders in medicine and vaccines respectively. Yet one cardiologist recently remarked that six out of 10 people who came to him were suffering from wind pains which might be alleviated just by eating less.

How the French spend so much on health is easier to explain. They have a system which combines US-style freedom of choice for patients and doctors with a European rate of state reimbursement of costs. Patients can shop around among doctors to find one who suits them or who prescribes the treatment they think they need. Doctors know this and prescribe accordingly.

In France you can also go directly to the specialist of your choice, often just by consulting the phone book. So France, which in terms of industrial nations has an average number of doctors (165,000) for its size, is unique in Europe in having almost that number of specialists too.

Not long ago I visited a dermatologist. She told me she was one of 3,000 dermatologists in France. She also said she knew that the UK had only 300 such skin spe-



Body politic remedies that smack of health rationing are likely to be strongly resisted

cialists. The reason was that virtually all skin specialists in the UK are located in hospitals and only treat people referred to them by general practitioners.

Any remedies that smack of health rationing, limiting patient choice or imposing delays on medical treatments are likely to be strongly resisted in France.

French newspaper readers have read horror stories about the UK's health system and do not want them repeated in France. In addition to placing new financial controls on the medical industry, the Juppé

government is using other means to try and change behaviour. One is to extend the use of a *carte de suivi* (literally, "a follow-up card") which records all the medical treatment which its holder has received. At the moment it is optional, but next year it is to be issued to all people over 70, and in 1997 to everyone.

Osteostasis, these carrots are being promoted as essential to prevent patients receiving dangerously incompatible treatments from different doctors. But the real aim is to crack down on over-prescription.

PEOPLE

Moore's get-together promises fireworks

Ian Hamilton Fazey outlines the family tensions unleashed as Littlewoods faces up to a possible bid

Most of the UK's collectively super-rich Moore's family will meet in secret in London this week at their twice-yearly forum.

They will have before them a report commissioned from Michael Gatenby, former deputy chairman of Charterhouse, spelling out the options for handling and realising the fabulous wealth they own in Littlewoods, the football pools, retailing and mail order group; 32 members of the Moore's family own Littlewoods between them.

What they learn will almost certainly decide the outcome of an extraordinary general meeting next week, to be held in private at Littlewoods' Liverpool headquarters.

The meeting will consider a request from Barry Dale - sacked as Littlewoods' chief executive last March - to open the company's books so that he and a consortium of financial institutions can carry out the due diligence test needed to make a bid worth at least £1.2bn for the company.

The decision has implications beyond Dale's own prospective bid, however. Dale is seen by Littlewoods' senior management as a stalking horse. By allowing him to make a serious offer, the shareholders would, in effect, put Littlewoods - the UK's largest privately owned business - into play, almost certainly sparking an auction.

It is impossible to predict the outcome, for this is a family that is neither at one nor at ease with itself.

All the shareholders are descended either from Sir John Moore, the inventor of football pools and founder of Littlewoods, or his brother Cecil. While they were alive, the threat of disinheritance meant there was very little dissent. When Sir John followed his brother to the grave two years ago at the age of 97, the last vestiges of enforced unity, already weakened by his increasing ill-health, went with him. Sir John and Cecil gave their children and grandchildren just enough material support to make them comfortable, and all they could have wanted in terms of educational opportunity; but they starved them of dividends from the business.

Instead, they ploughed back the profits, while bestowing on Merseyside charities, its football clubs and the arts, philanthropic largesse. When Liverpool Polytechnic made the leap to university status, Sir John's name, acknowledging his well-earned status as Merseyside's great



Family divided: the late Sir John Moore (right) and his son Peter

est post-war benefactor.

There are more than 50 direct descendants of the two men, increasingly scattered about the UK and beyond. As a result, ownership of Littlewoods' faces progressive dilution, with future shareholders increasingly remote from the origins of the business. Some younger family members are known to want their inheritance. The question is how many votes they command.

There might not be enough for the 75 per cent majority needed to sell the business, but it is not clear whether the issue of opening the books to Dale can be decided by simple majority. Once an auction started and the price rose, more might be tempted to sell.

The main champion of holding on is Lady Grauchester, Sir John's daughter Betty. Along with her son, James Suenson-Taylor - who is seen as a potential chairman by some in the family - she is one of three shareholders on Littlewoods' board of directors. The third is John Moore Jr, her brother, a tireless worker for the university that bears his father's name, as well as for a host of charities and the arts.

Their brother Peter, a former chief executive who was pushed aside by his father for not measuring up to his demands, will not be involved. He sold his 22 per cent holding to the family after Sir

John's death and has since been pursuing his interests in shooting and opera.

Of John Moore's children, his eldest son John III, was also thought a likely chairman, but he resigned from his management job at Littlewoods last April and decamped to Monte Carlo, which does not suggest sympathy for a Suenson-Taylor succession.

The views of Sir John's fourth child, Janatha, are unknown. Of Cecil's children, Nigel, the eldest, died in a car accident some years ago, while David is known in his own right as chairman of Liverpool Football Club and a patron of heavy metal rock bands.

A clue to how things may be shaping up, however, came last week when Littlewoods' management announced a plan for the company to borrow up to £250m to buy out shareholders who want to go. If the intention is to match Dale's offer, this suggests that up to 20 per cent of the votes may be involved.

Leonard van Geest, the chairman, and Bill Huntley, chief executive, want Dale to be turned away and for the present management to be given its chance.

Their trump card is that Littlewoods' performance can only improve if their £100m investment programme is allowed to take effect. In the medium and long term, any shareholders wanting an exit will probably get greater value if they hold on.



Brabeck preaches the anti-advertising gospel at Nestlé

Peter Brabeck, who becomes chief executive of Nestlé in June 1997, has sometimes annoyed his senior colleagues by forcefully arguing that advertising is losing its power to motivate consumers. But at least he has devised novel alternatives which have gathered customers to the world's largest foods group, Roderick Oram writes.

The habit of deep questioning and innovative answers will serve him well as he tries to bring tighter focus and sharper skills to the Swiss group, much expanded under 14 years of strong leadership by Helmut Maucher.

The "Maucher years" are far from over, however, since the outgoing CEO will remain chairman until he turns 72 in 2000. Quite how the two men will share the duties concerns analysts, who applauded the appointment but worried about the overlap. "The real issue is how much change Brabeck can affect," one said. "But I think he's a pretty forceful chap."

A 51-year-old Austrian, Brabeck started life at Nestlé as a frozen food salesman in Vienna in 1968. His big break came in 1987, when he was given the job of running culinary products worldwide. Since 1992, he has headed a large chunk of Nestlé's food business plus confectionery, ice cream and pet foods.

For the past three years he has also served as the group's chief marketing strategist, the ideal pulpit from which to preach a new communications message.

Advertising, he argues, is losing power for three reasons: the growth of retailers' own brands is cutting off manufacturers from consumers; mass audiences are splintering, thanks to satellite television and other new media; and food makers have wrongly focused on products and processes, rather than their foods' essential qualities.

Brabeck's response is best seen in his handling of Buitoni, the Italian pasta maker Nestlé acquired in 1988. He created instant heritage by buying the Buitoni family villa in Tuscany and turning it into a development centre. A Buitoni "club" and magazine were set up, along with other initiatives to involve consumers in a total Buitoni experience.

This way, Nestlé is rapidly building a global brand in the face of indifferent retailers and a babble of competing advertising.

Kvaerner chief's international mission

Norwegians may have done very nicely since they said "Nei" to joining the EU a year ago - the economy has never been stronger - but not everyone in the country is happy to sit in oil-pumped comfort while the rest of the world slips by, reports Hugh Carnegie from Stockholm.

Erik Tonseth, the no-nonsense chief executive of Kvaerner, Norway's second largest quoted company, is a man for whom spreading his business internationally has become something of a mission. Last week he launched his latest move, buying a 12 per cent stake in the British construction group Amec. He has his eye on Amec's oil and gas installation operations in the British sector of the North Sea and elsewhere.

Tonseth caused a stir during the campaign for the referendum on EU membership by suggesting that Kvaerner might move out of Norway if there was a No vote. "We would have to consider if it would be good for us to remain in Norway... we could not afford to remain in a closed, nationalistic environment," was his characteristically blunt comment.

He has not so far carried out his threat. But the headquarters of the oil and gas division - second in size to shipbuilding - is to be moved from Oslo to London, while a move by group headquarters has not been ruled out.

In seven years under Tonseth's stewardship, Kvaerner has become Europe's biggest shipbuilding concern. More remarkably, Kvaerner shipbuilding profits have been rising this year, at a time when other European shipbuilders have been in trouble.

Tonseth started by buying up the Govan yard in Scotland in 1988, shortly after he became chief executive. That has proved a net loss-maker, despite British government support. But Kvaerner could have made a solid argument for why share prices were expensive back in February, and missed out on a great stock market run. Explanations of why stocks have gone up or down are always just rationalisations after the event.

What are the chances of a 1987-style crash? Please, don't use that word when you speak to your stockbroker. The proper market term is a "correction", or even a "market break". Well, it felt like a crash in October 1987. Viewed from this distance, it was a blip - OK, a big one - in one of the longest bull markets of the century. The stock market now looks overdue for another blip. It hasn't had a significant correction since the autumn of 1990, and share prices will not move in one direction for ever.

You said earlier that there were two answers to the question of whether shares looked expensive. What's the other one? This is the longer-term answer. The post-cold war world has created a wealth of new markets for US companies. If the optimists are right, political stability and economic growth throughout Asia, Latin America and eastern Europe will create billions of new consumers. This is all happening in the midst of a technological revolution which makes it easier and more efficient to run global companies.

If you accept this triumphalist argument, which holds that US companies are the best positioned to dominate this new era of global consumerism, then share prices - based on the current dynamics of world markets - are by definition cheap. But it's only a theory.

So when's the stock market going to get to 6,000? As long as the mood of triumphalism lasts, the answer seems to be: soon. And why stop at 6,000? At least one pundit on Wall Street last week was calling for 10,000 by the end of the decade. If you judged solely on the enthusiasm around Wall Street right now, you would believe it could even happen.

That is, if the stock market doesn't crash first.

FT GUIDE TO THE DOW JONES AT 6,000

US shares just keep going up. The Dow Jones Industrial Average only went above 4,000 last February, yet now it's topped 5,000. How about 6,000? What's going on?

There are two ways to answer that. One is that the US economy seems to have got itself into a comfortable rut. Inflation is low, interest rates are low, and growth is low but seemingly steady. That may not set the pulse racing, but it has proved a good backdrop for US companies.

What's the other answer?

The average American has poured money into the stock market this year, and that always makes shares go up. Last year the fashionable thing to do was put your spare cash in an emerging market mutual fund, but Mexico's problems have made people think twice about all that. And, thanks to a lot of buying by foreigners, bond prices have got very high again, so they've become less attractive. That has left the stock market.

Has all this made US shares expensive?

On the most widely used valuation measure - the one that relates share prices to company profits - not particularly. The strong rise in corporate earnings has continued this year, at a time when many people thought earnings growth was running out of steam. Certainly the price/earnings ratio, in the high teens, is at the higher end of its traditional range. But the p/e ratio is by no means stretching credulity, provided you believe that corporate earnings are not about to slump.

What are the chances of that happening?

Well, there are risks. In its current euphoric mood, the stock market almost seems to believe that the business cycle is a thing of the past. Steering a path between boom and bust is notoriously difficult, even without the unpredictable external shocks the world has a habit of dealing out.

And even if there is no recession on the horizon, the fuel provided by a low inflation/low growth economy may simply have too low an octane content to keep driving earnings higher. Without strong economic growth, and with few opportunities to put up prices, US companies have had to rely on productivity improvements and restructurings to lift earnings.

This will not be an endlessly repeatable exercise: there are only so many times you can lay off thousands of workers, or sell off unprofitable divisions. Also, the advances in productivity made by US manufacturers have been exaggerated by the decline of the dollar. A reversal would wipe out much of the competitive advantage in the world market.

What about other valuation measures of US shares?

They look mixed. With bond prices so high, shares look relatively good value. But the dividend yield on shares - traditionally above 3 per cent - has now fallen as low as 2.5 per cent. Put simply, for those who live off the dividends on shares, the stock market is a very bad deal right now.

So if stocks are beginning to look expensive, we shouldn't be buying them?

There are two answers to that, too. In the short term, stocks may indeed have started to look expensive, but trying to time the stock market's next turn is an impossible exercise. Nobody on Wall Street earlier this year thought the market would rise to anything like its present level. And nobody knows where it is heading next.

You could have made a solid argument for why share prices were expensive back in February, and missed out on a great stock market run. Explanations of why stocks have gone up or down are always just rationalisations after the event.

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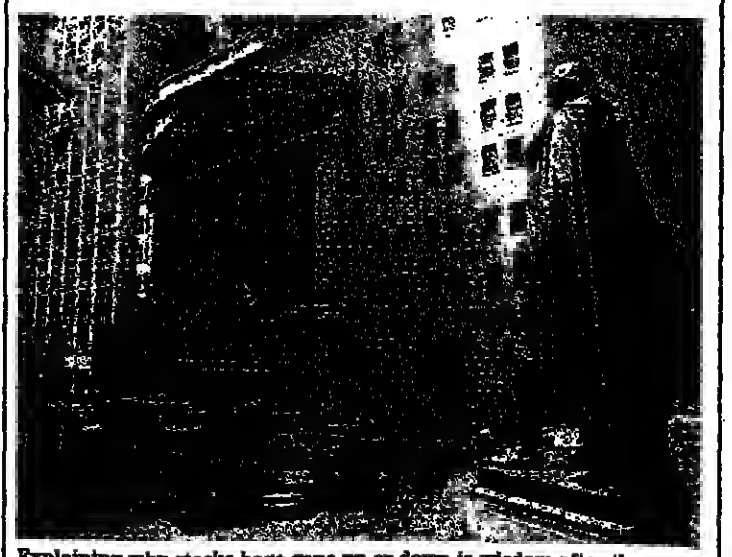
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Explaining why stocks have gone up or down is wisdom after the event

MUSIC

David McAlmont and Bernard Butler's "Yes" was one of the surprise hit singles of recent weeks, with its unforgettably grandiose production and lack of an obvious hook.

The duo's album *The Sounds of McAlmont and Butler* (Hut) is similarly full of good ideas and unlikely directions, from the Prince-like "What's the Excuse This Time?" to the excellent follow-up single "You Do".

McAlmont's is one of the most exciting voices around right now, and ex-Suede man Butler provides some startlingly original arrangements and tasteful guitar licks.

Kathleen Battle's *So Many Stars* (Sony) is one of the more successful crossover projects to come from the operatic world over the past year. Battle teams up with Grover Washington Jr, Cyrus Chestnut, Ira Coleman and other jazz luminaries in this collection of lullabies, love songs and spirituals, for which her voice is ideally suited.

At worst, the album sounds a little over-polished, but the gorgeous timbre of that voice usually deflects any criticism.

On the less acceptable side of blurring the boundaries of music-as-

we-know-it, *Christmas in Vienna III* (Sony), a live recording featuring Plácido Domingo, Sissel Kyrkjebø and Charles Aznavour, is enough to make one wish it was January.

Domingo and Aznavour swapping innuendos on "When a Child is Born" proves that - even in these wacky, eclectic times - there is still such a thing as a culture shock. And it doesn't feel good.

The Romanian mezzo-soprano Ruxandra Donose and the American tenor Thomas Harper feature in a new recording of Mahler's *Das Lied von der Erde* on the bargain-priced Naxos label.

Michael Halász conducts the National Symphony Orchestra of Ireland.

Swedish band Ace of Base - Abba without the melodies - are full of the joys of life at present.

Their latest album, *The Bridge* (London), kicks off with "Beautiful Life": "You can do what you want just seize the day; what you're doing tomorrow's gonna come your way." The composer, Jonas "Joker" Berggren, has the audacity to explain how the words and music came to him.

Peter Aspdén

FILM/VIDEO

Kenneth Branagh is an example to us all. Stomped on for *Frankenstein*, sneered at as a luvvie, estranged from Mrs B - and he comes back with *In The Bleak Midwinter* - or *Carry on Hamlet* by another name. As a dozen amateurs put on Shakespeare's show in a country church, the film's cast sizes away, led by Joan Collins, Jennifer Saunders, Richard Briers, John Sessions and Michael Mollony as the actor-director.

Made in black-and-white on a

molecule-sized budget, it still wins us over.

The Santa Clause is passable pre-Christmas fare: a Disney romp which features a father bequeathed sleigh-and-reindeer by a dying Santa. *Candymen II* explains itself - more horror with the hook-wielder.

And *Murder in the First* is a crime thriller starring Gary Oldman and Christian Slater.

On video, Tim Burton's *The Nightmare Before Christmas* is the

best buy if your children are climbing the walls in Yuletide anticipation.

Good songs, splendid animation and a wickedly funny plot.

Also on video, Nigel Hawthorne goes off his 18th century trolley in *The Madness of King George*. In *Pelle The Conqueror*, Max Von Sydow bestrides the Cannes prize-winning Danish epic about immigrants struggling in a new land.

Nigel Andrews



Nightmare No.1: Tim Burton's video merges Christmas and Halloween to entertaining effect

MANAGEMENT

Munich Re found that being biggest was no longer enough, report Ralph Atkins and Andrew Fisher

A giant step for reinsurance

The colossus is stirring. Confronted by fierce market pressures, Munich Reinsurance, the world's largest reinsurance company, has been forced to become more agile. It even has a 50-foot white statue – the featureless "Walking Man" – outside its newest office building to symbolise its aim of combining strength and mobility.

Munich Re dominates the business of insuring the world's insurance companies against big losses. Its investments have a book value alone of DM111bn (£50.6bn) – sufficient to pay claims from the largest catastrophes imaginable – and their unpublished market value is certainly substantially higher. As Robin Mitra, European insurance analyst at Merrill Lynch, the US investment house, says: "It is the Rolls-Royce of the reinsurance industry."

But being the world's biggest is no longer enough. Munich Re has to react to competitive pressures as strong as any earthquake.

Reinsurers' recent profitability could lead to premium rate reductions which threaten to erode earnings – in spite of ominous warnings from Munich Re that rapidly spreading industrialisation and climatic change are causing ever more costly catastrophes.

The corporate environment is also changing. Employers Re and General Re of the US, the world's third and fourth largest reinsurers, have taken control respectively of Frankona and Cologne Re, both substantial German reinsurers, while Swiss Re, the world's second largest, raised SFR5.5bn (£3bn) a year ago by selling its conventional insurance companies to concentrate on its reinsurance business.

Meanwhile, in the tax haven of Bermuda, innovative and fast-growing reinsurers are developing policies that bridge the boundaries between insurance and investment products, which could offer cheaper, more flexible ways of protecting insurers' balance sheets.

Munich Re's response has been low profile but bold, at least by German standards. Most dramatically, Hans-Jürgen Schinzier, 55, chairman since 1993, has introduced sweeping management changes, abolishing job titles and ending "chimney careers", in which employees advanced steadily up the hierarchy. Instead of a deeply hierarchical structure with as many as 10 layers, in which every third employee had a title, Munich Re now has only three management levels below the board.

"This was quite a drastic step in an organisation like ours," says Schinzier. It was certainly unusual in the hidebound world of German finance. Rudolf Ficker, a Munich Re director, says: "Now we are ahead of the pack. We get calls from the [insurance] industry and outside to ask how we did it."

The changes were aimed less at cutting costs than at controlling risk exposure. As Schinzier points out, Munich Re's own administrative expenses are relatively unim-

portant, being equivalent to 3 per cent of premium income. But a large hurricane or earthquake can have far more impact on profits than any restructuring exercise.

Reinsurers are looking to work more closely with insurers to understand the risks, and ensure good business is not lost to competitors. So the main aim of Munich Re's restructuring was to speed up response times and delegate authority.

"Too many decisions were being referred back and forth between hierarchies," Schinzier explains. "We want to be faster and more flexible."

Another obvious pay-off for Munich Re is that it can respond more quickly to clients' needs, especially abroad. In the fast-growing Asian markets, for example, Ficker, who is responsible for the region, says: "We want to put more underwriting responsibility locally."

Munich Re's increased focus on risk control has earned it a reputation as a pedlar of doom and gloom on the escalating cost of disasters and liability laws. Last year it pledged to reduce or terminate business connections where it believed the premiums did not justify the risks. Thus, premium income in fire business, for example, was down by 12 per cent. Overall group premium income rose marginally to DM 29bn with net profits 8 per cent higher at DM 32m.

However, the focus on making profits on the core business has paid off. Munich Re says a disaster out of the scale of hurricane Andrew in 1992 would cost it only half as much as the \$300m (£190m) it had to pay out.

Munich Re's insurance specialist at Barclays de Zoete Wedd, says: "They have been battering down the hatches in certain areas and there appears to be a more concerted effort to concentrate on risk selection and pricing."

As a result, for the first time since the late 1970s, Munich Re produced a reinsurance underwriting profit in 1994-95 of DM93m – against a DM1.1bn loss two years earlier.

"The vulnerability of reinsurers' profits to large catastrophes makes it hard to predict whether that performance can be sustained. But, says Schinzier: "We would like to

make underwriting profits every year. This is certainly a goal."

Staff salaries now have a larger performance-related element and Munich Re has also set targets for returns on equity. These have not been published for fear of giving too much information to rivals, and would anyway, says Schinzier, be meaningless for comparisons, given differences between companies in

the treatment of reserves, shareholder funds and other assets. To that extent, Munich Re has failed to shake off its image as secretive and conservative. This is epitomised by the valuing of its prestigious Munich headquarters in the group's accounts at only a few million D-Marks, a fraction of its true value.

"It is just so difficult for anyone



to really find out what is going on," says Duncanson.

In contrast, Lukas Mühlemann, the new chief executive of rival Swiss Re, has not only created a stir by selling the group's direct insurance operations, but has published a target rate of 15 per cent return on equity.

Schinzier says Munich Re and Swiss Re have basic differences in

approach towards conventional insurance. He argues that Swiss Re suffered because its direct insurers had been acquired only recently and had performed poorly. "With Munich Re the situation is quite different. We have had our German direct insurance group for decades. All of the group have produced good profits. It is a very good strategy to have that direct insurance group because reinsurance is, by definition, a volatile business."

Munich Re is also more cautious than its Zurich-based rival about the prospects for developing new reinsurance deals. Swiss Re has in the past year linked up with CS Holdings, the financial services group built around Credit Suisse, to expand its product range.

Meanwhile, Munich Re is investigating the possibilities for selling more actively "financial reinsurance" products. These involve investing a client's money to provide a guaranteed financial cushion against a catastrophe. For some clients, such contracts could be less costly; for reinsurers, they offer less exposure to risk.

Schinzier says a joint venture is possible. "We're talking to several banks... to see whether or not it would make sense to join forces."

Nor does he rule out a Bermuda location for any new venture, although he adds: "At present we are investigating these investments by ourselves internally and so far no one has really come up with anything that is absolutely convincing."

Swiss Re and Munich Re are alike, however, in looking to expand their geographical spread – not only to tap profit opportunities but also to balance their exposure to risks in particular parts of the world. Reinsurers are generally looking to balance exposure to expensive catastrophes in the US with lower risks in Europe or – particularly in Munich Re's case – East Asia and South America.

That, Schinzier says, is why General Re and Employers Re have expanded their European operations. He does not think the new arrivals pose as great a threat as might be feared, because they will be looking to recompile acquisition costs and protect their returns. "Our competitors are on the same trip as we. We all want to have a profitable business," Schinzier says.

He believes the real competitive threat is "uninformed capital" – reinsurers without Munich Re's experience and expertise in risk assessment who threaten to drive prices below profitable levels. "There may be too many players who do not know what they are doing."

Munich Re, with its massive financial resources, could always undercut others and maintain or increase market share, but at the expense of profits. Schinzier warns: "One should not say 'bigger is better'. There may be an ideal size. The problem is not the volume. The problem is the quality of the business."

For Munich of the US, the venture with an established player in the Benetton promises to provide access to Europe's fragmented market. For Alcas, the partnership offers a chance to find swift growth through satellite technology, an important diversification from its base in the distribution of music by cassettes and compact discs.

"We can reach from the north of Norway to the north of Africa, including Israel," says Bob van den Berg, managing director of Muzak Europe. The plan is to find distributors in Germany, Britain and Scandinavia in 1996, and then to spread across Europe by finding additional distribution companies in Italy and Spain in 1997.

The music will be programmed by Alcas at its base in the Dutch town of Naarden, and broadcast from the joint venture's office in neighbouring Hilversum. "The music will reflect European rather than American roots. To appeal to people in Europe, you have to have Irish hands, too," Van den Berg says. "You have to be able to include the odd French-language hit."

Ronald van der Krol

Doom and gloom merchants

As yet, Munich Re does not have comprehensive research or data on potential claims, but Hans-Dieter Sellschopp, a Munich Re director, says: "In some areas, we can see initial developments which might be comparable with the first stages of asbestos 30 years ago."

In its latest annual report, Munich Re also warns that "As measuring and detection equipment are continually refined, products and substances previously regarded as harmless will be recognised as hazardous to health. In

addition, more and more refined techniques make it possible to target responsible parties even more precisely and thus result in even more claims for damages."

When environmental pollution claims began to escalate in the 1980s, insurers changed liability insurance policy terms from an "occurrence" basis to "claims made".

An occurrence basis policy covers the year when the insurable event occurred. With pollution losses, which may take many years to

emerge, insurers can find themselves paying claims on policies that are decades old. With "claims made" policies, claims have to be made within a certain period covered by the policy.

Munich Re is now pressing for a similar change in wording on a broader range of policies and, in some areas, is demanding such a change as part of its contract to reinsure an insurer. Says Sellschopp: "We just want to alert underwriters' minds to the problems that might develop."

Above each fire extinguisher in our office a plastic plaque has been erected depicting a fire extinguisher next to some flames. It occurs to me that there are other objects in the office that could do with similar clarification. A picture of a coat could advantageously be attached to hangers, or a picture of a bottom in chairs. Offices are confusing places, and anything that makes our lives a bit clearer is welcome.

is doing at C&W. With the benefit of hindsight the passage betrays how bad relations must have been between him and Lord Young. Ross talks of the lamentable state that the company was in when he became chief exec in 1981, neglecting to mention that Lord Young was already well established as chairman at that time. His subsequent discussion of strategy is all Me, Me, Me: Lord Young does not get a single mention.

Anyway, both men will now collect their handsome payoffs and wait to be offered new high-profile, well-paid jobs. Meanwhile, the acting chairman of C&W is desperately

The Firm's failure to train Diana

Thanks to Princess Diana's outburst last week, we know that the failure to train people in Britain goes to the top. "No one sat me down with a piece of paper and said: 'This is what is expected of you'," she complained to the world. "You had to either sink or swim. And you had to learn that very fast."

Never mind the bulimia, the self-mutilation, the affair with James Hewitt or the undermining of Prince Charles: the real lesson from Dianarama is a management one. Buckingham Palace has fallen down on its obligation as an employer to provide adequate training.

Every other organisation in Britain is belatedly recognising that its top people are in urgent need of training. It is possible that the House of Windsor might not be in its present fix if it had sent the young Lady Diana and that other unfortunate, Sarah Ferguson, to a country retreat to learn about the

responsibilities of the job and do a few role play exercises. It should have provided them with coaches and mentors, and conducted workshops on goal setting, teamwork and seeing things from the other person's point of view.

But as every management consultant knows, none of this would have stood a chance of success unless the rest of the organisation had "bought into" the process. In other words, the palace would have had to "own" the training programme. That is where the theory starts looking implausible: Buckingham Palace is simply not a Learning Organisation. Instead, it is a managerial disaster murky on its vision, mission and values; dire on empowerment. In short, it is the sort of organisation that allows one faction to refer publicly to the other as "the enemy".

The management consultancy industry has already given the once over to such unlikely organisations as the National Health Service, the BBC and the Treasury. So here is a

LUCY KELLAWAY



perfect opportunity for McKinsey and its rivals. Or perhaps that well-known management motivator Will Carling could be called upon. On second thoughts...

Just a week before Lord Young and James Ross were ousted at Cable and Wireless, a pompous volume was published called *Maximum Leadership: The World's Top Business Leaders Discuss How They Add Value To Their Companies*. Among those top business leaders is Ross, who in the book holds forth at some length about what a terrific job he

is doing at C&W. With the benefit of hindsight the passage betrays how bad relations must have been between him and Lord Young. Ross talks of the lamentable state that the company was in when he became chief exec in 1981, neglecting to mention that Lord Young was already well established as chairman at that time. His subsequent discussion of strategy is all Me, Me, Me: Lord Young does not get a single mention.

Anyway, both men will now collect their handsome payoffs and wait to be offered new high-profile, well-paid jobs. Meanwhile, the acting chairman of C&W is desperately

searching for two new people to fill the vacancies, a task which he has said may take up to a year.

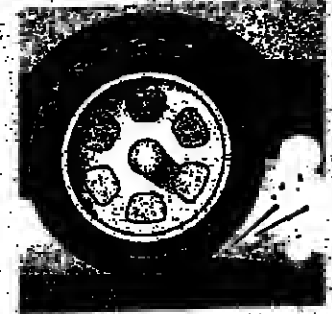
It is a puzzle why so many of these senior management jobs are taken so long to fill. Headhunters would do well to heed Peter Drucker, who said: "No institution can possibly survive if it needs geniuses or supermen to manage it. It must be organised in such a way as to be able to get along under a leadership of average human beings." Indeed, as C&W has discovered, the more supermen and geniuses a company has at the top, the worse for it.

By Charles Parkas, Philippe de Bacher and Allan Sheppard, Orion, £20.

It is not just the western world that is on a customer service drive. The same sort of thing is going on in China, where the government is trying to persuade all workers to be more responsive to clients. But in

true Chinese style, it is doing this by fiat: according to the People's Daily, it has outlawed 14 phrases that are deemed offensive to the customer. These include: "Hey, old man!", "Hey peasant!", "What are you shouting about, can't you see I'm eating?", "I'm off duty, wait for the next shift," and "Hurry up and pay." It will be interesting to see if the heavy-handed approach works. Western companies have been trying to stamp out surliness using a softer touch, but are not there yet.

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FAST TRACK
Muzak
Europe

As in any industry, the world of "muzak" has big and small players. At the very top, Muzak of the US, a 61-year-old company whose name has become a generic term for background, or functional, music – sometimes also referred to unkindly as "elevator music". And then there's Alcas, a Dutch specialist in background music, which, although just a fraction of Muzak's size, has recently become the US company's partner in a venture to bring satellite-based functional music to Europe's department stores, hotels and petrol stations.

Their 20/50 partnership, Muzak Europe, is designed just to beat music across Europe but also to provide in-store advertising, business television and data communication. If successful, it will catapult Alcas into faster growth, capping a year that has included two domestic acquisitions which have broadened the company's traditional base in bars and pubs to include clothing stores and other retail outlets.

The genesis of the partnership was an article in a Dutch magazine about Muzak's 60th birthday. Eric van der Horst, Alcas' managing director, said the article made clear that Muzak was at the forefront of satellite broadcasting. This led to letters and telephone calls to Muzak in Seattle, and a visit to the US company's headquarters several weeks later. Van der Horst's opening line was: "Hello, we're the small fry from Europe."

"The difference between us and Muzak is that Muzak is a privately-held company whose turnover is estimated at \$130m (£95m), reaches 80m customers a day, mainly in the US, through 280,000 links, of which 80,000 are by satellite. Alcas, with turnover of £110m (£70m), has a reach of 2m people in the Benetton, Germany and Spain. Thanks to the new venture, it now hopes to generate turnover of £125m by 2000."

From Van der Horst's first meeting in March, it took just five months to sign the joint venture agreement in August. Actual commercial operations are due to start in January. For Muzak of the US, the venture with an established player in the Benetton promises to provide access to Europe's fragmented market. For Alcas, the partnership offers a chance to find swift growth through satellite technology, an important diversification from its base in the distribution of music by cassettes and compact discs.

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Ronald van der Krol

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LUXEMBOURG - SWITZERLAND

NEWS FROM
CAMPUSOriental alliance in
management training

Two business schools in Hong Kong and Britain have teamed up to help companies to expand operations in south-east Asia. The Poon Kam Kai Institute of Management (PKIM), part of the University of Hong Kong, and the Ashridge Management College intend to offer management training tailored to the region.

PKIM, Hong Kong, 2523 8630.
Ashridge, UK, (01442 841000.
The first business development conference for 20 years will take place in Ho Chi Minh City in December. The conference is sponsored by the DePaul University in Chicago together with the Australian Swinburne University and the Vietnam Chamber of Commerce.
DePaul, US, 312 362 8391.

Counting the pennies to
save the pounds

Many senior managers are often too embarrassed to admit that they lack the basics of financial management. For those who live in fear of a balance sheet, RB International, of Cambridge, has developed a

two-day training course to
demystify accounting jargon
for top management.

The course, called PCP, has already been used widely in Australia and by many of Britain's blue chip companies. A similar course has been developed for lower-level managers.
RBI, UK, (01223 833537.

New management
skills for old

Anyone who took their MBA more than three years ago can now update their skills with a three-day refresher course at Lancaster University Management School. The first course will be in January.
Lancaster, UK, (01524 63201.

Manchester promise
for eastern students

In a bid to improve its contacts with businesses and students in India, Manchester Business School has set up the India Research and Development Unit. The unit will encourage more students from India to study in Manchester as well as encouraging collaboration with Indian businesses.
MBS, UK, (0161 275 6333.

With only a graceful flourish of his arm and a slow puff of breath, Kozo Nishino sends a student tumbling backwards into the padded walls of his exercise hall. He grins as the student screams and cartwheels across the floor, coming to rest in the arms of a burly assistant.

Dozens more line up for their turn to experience the Nishino Breathing Method, a combination of breathing exercises and "ki", the essential life force which, oriental medicine says, all humans possess and which forms the basis of many martial arts.

Not unusual, perhaps, in a land where many of those arts were born and where the relentless pace and rigid conformity of life has bred whole industries dedicated to stress relief and self-improvement.

Executives from some of Japan's top companies are among those nightly hitting the walls at the Nishino Juku (school), a modern, six-storey, glass-fronted edifice on the fringes of Tokyo's bustling Shibuya shopping district.

Among them are directors of Old Electric, NEC, Casio and Sega Enterprises who say the Nishino method boosts energy levels, helps them focus clearly on business problems and increases their enthusiasm.

Nishino, a 69-year-old former ballet dancer, TV producer and martial arts master who holds a degree in medicine, is a minor celebrity in Japan. He is revered by his students and his young instructors line up out-

Arnold Redhead visits an unorthodox school
which offers to revitalise weary executivesA breath of
Tokyo air

side the school every night to watch "sensei" (the master) get into his car to be driven home.

Bright, alert and with a talent for theatre left over from his ballet days, Nishino does not look like a crank. The idea, he says, is to allow people to separate their natural energy from the thought process so they can allow energy, or "physical intelligence", to escape from the confines imposed on it by the brain.

"People act on what their brains tell them," Nishino says. "That's not natural. The body's energy is natural."

Nishino says his methods can improve everything from a heart condition to a golf game. He has some powerful supporters, especially among businessmen.

"The Nishino method makes me feel healthy. When I'm healthy I'm much more positive towards my work," says Yutchi Hanata, NEC senior managing director. Nishino's teachings do not solve business

problems but create a healthy body and enthusiastic attitude that get the job done, he says.

Nishino says his method is ideal for executives approaching the peak of their management power around the age of 50. This is a cruel time, he says, because the body loses power just as the mind comes into its own. He offers to renew the body's energy, boosting productivity, problem-solving ability, concentration and hence profits.

The first thing that strikes a visitor to the school are the screams and thumps emanating from various parts of the building. In the exercise rooms, reminiscent of ballet studios, dozens of executives are seen through the glass windows, some of them sweating and some of them laughing.

Not everyone reacts uncontrollably. Some simply float

gracefully backwards, bow in thanks and walk back to the end of the queue. One middle-aged woman pirouettes gracefully, laughing as she spins. Nishino says the reactions vary because of the different ways each person's physical intelligence manifests itself.

Around 10,000 students pay between \$50 and \$250 a month for the lessons, depending on the frequency. The cheapest course is about the same price as membership in one of Tokyo's many private gyms.

Nishino developed the breathing method while studying aikido, a form of judo used for self-defence. He summoned up a force, "ki", that allowed him to beat a much stronger opponent by drawing it up through his body as if he was pots it, he was "breathing through the soles of his feet".

He likens the process to a tree sucking water up from the earth. Following the Nishino breathing exercises allows the energy to reach the whole body



while exhaling pushes it out. The direction the ki leaves the body can be controlled with practice, which is how Nishino communicates his ki to students. Many say the feeling is like running into a wall of air.

There is a strong temptation to place Nishino in the long line of sharp practitioners of the art of preying on emotional needs. But no one leaves the Juku hysterical after a session, and the large proportion of professionals who practice the method, including doctors, architects, company executives and even a high-court judge, would be evidence against such a charge.

Nishino himself derives an almost boyish pleasure from what he does. "I wonder what some of these peoples' wives would think if they could see them here," he says.

CONFERENCES & EXHIBITIONS

NOVEMBER 29 - DECEMBER 1
FT Venture Forum Europe '95
Recognised experts from Europe and North America will take part in this annual European venture capital conference - the fifth in a well received series arranged jointly by FT Conferences and Venture Economics. Panel sessions will look at a number of issues including new trends in venture capital in Europe, the climate for fund raising and development in buyout financing and the new EASDAQ market.
Enquiries: FT Conferences
Tel: 0171 814 9770
Fax: 0171 873 3973/3969

DECEMBER 5
FT St Petersburg Municipal Bond Programme
This half day seminar, hosted by the Government of St Petersburg, will examine the risk and rewards for investors in the St Petersburg municipal bond programme, as the market is about to be opened to foreign investors. Mr Anatoly Sobchak, the Mayor of St Petersburg will open the conference.
Enquiries: FT Conferences
Tel: 0171 814 9770
Fax: 0171 873 3973/3969

DECEMBER 5-6
Pay, Reward and Performance
Management: New compensation and motivation strategies for the 21st century
Delivering, downsizing and re-engineering have led to massive, near-bankrupt organisations. Pay and appraisal systems must change to reflect this new reality, it presents practical strategies for designing and implementing these systems to meet current business objectives.
Contact: Business Intelligence
Tel: 0181 543 6565 Fax: 0181 544 9030

DECEMBER 6
Planning for Uncertainty
Despite three years of economic recovery we are entering a period of uncertainty. Will the UK economy slow or are we poised for a consumer boom? Can Labour finally win and what difference would it make? These questions and more will be tackled at our forthcoming conference.
Cost: £275 + VAT
Contact: Anna Hume at The Henley Centre
Tel: 0171 353 9961

DECEMBER 8-10
Master the Leading Edge
For the first time ever, Robert Dilts, leading pioneer in NLP modelling, presents his powerful and unique 3 day experiential training programme. Five years of research sponsored by international companies including FIAT and Disney. A 150 page fully engineered manual with previously unpublished research. Cost: £300 + VAT. Discounts for groups from one organisation.
Contact: PSC Personal Development and Business Training
Tel: 0171 794 0940 Fax: 0171 794 7366

DECEMBER 11 & 12
The Outlook for Natural Gas
One of the widely viewed as the fuel of the decade with production and use growing strongly worldwide. With the advantage of being seen to an environmentally friendly fuel and reserves that are set to out-strip oil, will the gas business fulfil its widely held promise or are expectations being set too high?
Enquiries: FT Conferences
Tel: 0171 814 9770
Fax: 0171 873 3973/3969

DECEMBER 11-15
Options/Advanced Option Techniques
A two-day basic course and three-day advanced programme available for booking separately if required. Examining the mathematical and practical concepts of pricing, trading and hedging strategies using interest rate and currency options. Case studies. Practical exercises. Limited delegate numbers.
Contact: UFI Financial Training
Tel: 44 171 637 4383 Fax: 44 171 636 2330

DECEMBER 12/13
Introduction to Foreign Exchange and Money Markets
Highly participative training course covering traditional FX and money markets featuring WINDEAL, a realistic PC based dealing simulator. For corporate treasurers, bank traders, marketing executives, financial consultants, systems and support personnel.
Contact: Lyndon Day International Ltd
Tel: UK 44 (0) 1959 563620
Fax: UK 44 (0) 1959 563621

DECEMBER 14 - 15
Managing Major Client Relationships
Aimed at professionals who manage key accounts and are interested in building stronger relationships through strategic business planning and relationship building skills. • Overview of the sales cycle • Developing a strategic account plan • Confrontation and negotiation skills • Executive presentations • Differentiating yourself from the competition.
Contact: Ebury Institute, BPP Book Training
Tel: 0171 628 8444 Fax: 0171 628 7318

JANUARY 4
Managing Your Time
There are never enough hours in the day. How to manage time effectively and prioritise your work load. • Analysing your Responsibilities and Setting Objectives, Action Planning, Time Management Techniques • Effective use of the telephone and fax • Running Teams, Delegation, Controlling Meetings, Dealing with Interruptions, Managing Yourself and Others
1 day £220
Contact: Fairplace
Tel: 0171 329 0595 Fax: 0171 329 3853

JANUARY 10-12
Understanding the Mathematics of Financial Instruments and Markets
This hands-on training course will enable you to unlock the complexities of market maths and dramatically increase your understanding when performing calculations. The course covers all the major markets and the instruments used in them, including derivatives, bonds and yield curves, futures and forwards, swaps, options, risk management and equity more complex topics.
For more information contact Jeff Hearn at IFF
Tel: 0171 344 3833 Fax: 0171 344 0063

JANUARY 15-17
Basic Treasury Management
Increase knowledge of treasury products, improving sales, profits and customer relationships.
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Tel: 0171 329 0595 Fax: 0171 329 3853

JANUARY 15-17
Interactive Real-Time Trading Forum
This unique event will take your trading potential to new heights, master the complexities of futures and options trading strategies and put your knowledge to the test via our live link to the markets. You will learn, advanced trading strategies that really work in practice, proven practical applications for volatility pricing, hedging, risk management and trading. Live computer simulations will enable you to make the jump from theory to practice with incredible results. For more information contact Jeff Hearn at IFF
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JANUARY 18 & 19
Introduction to Swaps
The 'Swap' now permeates many financial transactions. Understanding the mechanism of this instrument is essential to all corporate bankers, treasurers and financial advisers such as lawyers and accountants. This course will also be relevant to back office staff, bank auditors and IT system analysts, as well as market dealers. • History and Development of the Swap Market • Mechanics of the Basic Swap • Interest Rate and Currency Swaps, Swap Maths. 2 Days £295.
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Tel: 0171 329 0595 Fax: 0171 329 3853

JANUARY 19
FT London Motor Conference
This twelfth FT Conference will consider how the European motor industry is preparing for the 21st century. Developments in multi-franchising, opportunities in the European aftermarket and the impact on the sector of internationalisation. It will be among the topics to be discussed.
Enquiries: FT Conferences
Tel: 0171 814 9770 Fax: 0171 873 3973/3969

JANUARY 23-24
Technology Assisted Human Resources
This two-day conference will show how leading organisations are effectively using technology as the new corporate "glue" and why this has enabled them to concentrate more on meeting the needs of the organisation, providing leadership, developing staff and contributing to the overall business strategy. Speaker include: ICL; Nortel; Resonant; Reed Personnel Service; Institute of Employment Studies. Watch out for the live Video-Conference Demo!
Contact: Rachel Marks, IQPC
Tel: 0500 821057 Fax: 0181 332 1151

JANUARY 22-24
Capital Markets Explained
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Tel: 0171 637 4383 Fax: 0171 631 3214

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This course is especially relevant to those wishing to gain an insight into the techniques and procedures employed in specialised recovery work.
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Tel: 0171 329 0595 Fax: 0171 329 3853

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Tel: 0171 637 4383 Fax: 0171 631 3214

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Contact: Ross Tanner, BPP Book Training
Tel: 0171 628 8444 Fax: 0171 628 7318

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New Markets for Smaller Company Shares
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Enquiries: FT Conferences
Tel: 0171 814 9770 Fax: 0171 873 3973/3969

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Global Information Access
A multi-media series covering the convergence of communications, computing and multimedia technologies, highlighting the increasing importance of global information access in everyday business practice. Expert speakers present leading edge developments and new users discuss their experience of applying these technologies to competitive advantage.
Contact: UNICOM Seminars
Tel: 01895 256 484 Fax: 01895 813 095

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BUSINESS TRAVEL

French rail strike

A strike by French rail workers entered its third day yesterday, causing serious disruptions to services across the country, especially in the Paris region, the state-owned SNCF rail company said. SNCF employees, who joined a national public-sector strike over the government's plan to reform the welfare system three days ago, were encouraged by four trade unions to continue their stoppage at least until today.

The unions fear that this year's annual state-SNCF contract, expected to be unveiled this week, will exact deep economies. Reports said the contract will prescribe salary limits, job cuts and declassification of loss-making rail lines. The company said that because of the strike it had brought forward round-table talks with unions on the annual contract to yesterday afternoon. SNCF said that an average of one in four main-line trains were running yesterday, though some ran on the busy Paris-Lyon line. Regional services were severely disrupted.

Premium travel 'over'

Sir Freddie Laker, the pioneer of out-price air travel, says the days of premium-class business travel will soon be over, Michael Saperstein writes. "I can't see how the traveller will continue to accept a system where one passenger is paying over \$7,000 (£4,430) to sit in the front cabin, while on the same flight another passenger is paying less than \$500 at the rear," he said. Sir Freddie told a dinner organised by City of London law firm Rowe & Mawds that the Internet and video conferencing would spell the end of long-haul

business travel. He said: "Who is going to pay those sort of prices? ... When for a few hundred dollars invested in a computer and a connection which costs the price of a local phone call, you will be able to have a video conference where you can talk to and see the people you are communicating with?" But his pessimism clearly has its limits: he is about to re-enter the transatlantic market. His flights from London's Gatwick airport to Orlando and Fort Lauderdale in Florida begin in March.

Tired pilots warning

Two of five UK pilots have admitted to falling asleep at the controls, and plans to increase their hours would be dangerous for crews and passengers, a pilots' union has warned. One tired pilot accidentally strayed into a UN no-fly zone over former Yugoslavia where he feared being shot down, according to a survey by the British Airline Pilots' Association. Longer flying times are being suggested by Europe's Joint Aviation Authority. But the union opposes the plans, warning of increased dangers.

Airlines challenge

Against the airlines' claims that the EU will launch a challenge to the freedom of the skies, the French domestic airline Air France has said it will not be a "mini-hub". Paris will be similar to other of Air France's French domestic airports. The flights will be scheduled to allow, for example, passengers from Nantes to pick up the Airbus flight to Madrid and passengers from Toulouse to transfer to the Rome flight.

Likely weather in the leading business centres

	Mon	Tue	Wed	Thurs	Fri
London	12-18	10-16	11-17	12-18	13-19
Paris	11-17	9-15	10-16	11-17	12-18
Frankfurt	10-16	8-14	9-15	10-16	11-17
Amsterdam	11-17	9-15	10-16	11-17	12-18
Brussels	11-17	9-15	10-16	11-17	12-18
Madrid	12-18	10-16	11-17	12-18	13-19
Rome	13-19	11-17	12-18	13-19	14-20
Tokyo	14-20	12-18	13-19	14-20	15-21
Hong Kong	15-21	13-19	14-20	15-21	16-22
Singapore	16-22	14-20	15-21	16-22	17-23
Delhi	17-23	15-21	16-22	17-23	18-24
Mumbai	18-24	16-22	17-23	18-24	19-25
Calcutta	19-25	17-23	18-24	19-25	20-26
Beijing	20-26	18-24	19-25	20-26	21-27
Shanghai	21-27	19-25	20-26	21-27	22-28
Seoul	22-28	20-26	21-27	22-28	23-29
Osaka	23-29	21-27	22-28	23-29	24-30
Manila	24-30	22-28	23-29	24-30	25-31
Bangkok	25-31	23-29	24-30	25-31	26-32
Colombo	26-32	24-30	25-31	26-32	27-33
Perth	27-33	25-31	26-32	27-33	28-34
Auckland	28-34	26-32	27-33	28-34	29-35

It's no good dragging your portable office on a trip unless you can link it up. Paul Taylor offers advice for those on the move

In a world of tight connections

Travelling with your mobile office - portable personal computer, fax-modem and telephone - should be child's play. But, as most business travellers know to their cost, getting technology to work in the real world is rarely simple. Batteries on portable PCs run out at crucial moments; modems can't be connected because telephone plugs are the wrong ones; and a message on the cellular telephone screen says the call cannot be connected even though there is supposed to be a "roaming agreement" between the network operators.

Your problems start with deciding what to pack. Along with the PC itself it is wise to take a spare battery pack if it will be used for more than a few hours away from a mains socket - colour screens, disc drives and modem communications all shorten battery life. As well as a power lead and

mains transformer, a plug adapter is essential. And if your portable is running Microsoft Windows and will be used for any length of time, it may be an idea to take a proper mouse rather than soldier on with the mostly inadequate trackball or other pointing devices that are built into most machines. For travellers with Microsoft's Windows 95, files on your portable and desktop PC can be "synchronised" before setting off. Even without Windows 95 or one of the many alternative applications programs designed specifically for remote access, it can save a lot of time later if you take copies of desktop files which may be required. "Safety first" also dictates the need for backup copies of the operating system and any essential software in case something disastrous happens en-route. A corrupted Windows file is relatively easily replaced

in New York, but how about New Delhi? Unless good user support is available at the end of a telephone line, manuals can also help in a tight spot, but add to the weight. Most portables now come with pretty effective help files loaded on to the hard disc. Do not worry about the portable or floppy discs passing through standard airport security scanners: your data should be safe. But at some airports, security officers will want to see the PC working, so it always helps to have charged the battery before setting off. The controversy over whether or not portable PCs interfere with aircraft electronic systems has raged since the first "ingehab" appeared in the early 1980s. Most airlines now ban the use of portables - and many other electronic devices - during takeoff and landing, or even (in the case of mobile phones) in flight. The other essential device

for data communications such as electronic mail or file transfer while travelling is a fax-modem. In the past, most of these were external devices about the size of a cigarette packet, but the widespread acceptance of the credit-card sized PCMCIA or PC-Card slot standard means that most portable modems are now sold in this more convenient format. Whatever the type (and speed) of modem, it will be useless without a telephone connection, and that is the biggest challenge. There are about 38 different types of telephone socket in use around the world - including approximately 20 old- and new-style sockets in Europe and Scandinavia. Companies such as TeleAdapt have emerged to address these problems by offering a wide range of socket adapters, multifunctional kits, tools and other devices. For example, the TeleSwitch is designed to cope with the digital switchboards

in many new hotels. Other devices including acoustic couplers are available where telephones are hard-wired to the wall or where a public payphone is the only option. In extreme circumstances a small screwdriver and crocodile clips can come in handy. TeleAdapt also publishes a pocketbook-sized *Personal Flight Guide* which is updated quarterly and includes helpful and entertaining notes on connecting portables to the public telephone network. Many first-class hotels now offer business centres, most of which are equipped with modem-friendly telephone sockets, usually of US-style modular design. Others have installed secondary fax or modem slots in bedrooms or desktop telephones with built-in modem sockets. If you expect to make a lot of long-distance calls from hotels a phonecard from one of the international operators can

dramatically reduce hotel bills. For e-mail or Internet access, CompuServe has local telephone access numbers in most parts of the world, and for data file transfer packet-switched services such as British Telecom's GNS service have local nodes around the globe. A PCMCIA dataset coupled with a digital cellular telephone using the pan-European GSM (global system for mobiles) network standard can provide the ultimate in wireless data communications. However, a local GSM network does not guarantee simple data or voice communication. First, there must be a "roaming" agreement between the home network operator - for example, Vodafone or O2net in the UK - and the overseas network. Second, the subscriber's home network operator must have programmed the network to allow operation overseas - the international call bar must have been lifted.



Finally, in the case of data traffic including faxes, the local GSM network must have been configured to provide this service. For example, the two French GSM networks do not support data. Since cross-border GSM calls tend to be expensive, and the subscriber is charged for the non-domestic portion of incoming calls as well, it is also worth checking what credit limit - if any - has been placed on the account with the service provider. Overall, despite the substantial advances made in terms of portable computing and telephony over the past decade, successful data communications while travelling is still more of an art than a science. TeleAdapt, UK tel: 0181 421 4444, US: 408-370 5105.



Converted buildings only rarely make entirely satisfactory art galleries. It is a difficult task to retain the integrity of a period interior and at the same time show works of art to their best advantage. At the Musée D'Orsay in Paris and the Courtauld Institute's Somerset

Toulouse museum building steals the show

House in London, architecture wins over art hands down. However, serving two masters has posed few problems at the Hôtel D'Assézat in Toulouse. This Renaissance hôtel particulier, built in the 1550s for the merchant Pierre Assézat, has been restored to

house the paintings and works of art given to the town by Georges Bernberg. Much altered in the 18th century and turned into warehouses and offices in the 19th century, few of its period interiors remained intact. Inside is a not untypical late-20th

century collection: small-scale Venetian *vedute*, including a sparkling Canaletto and bravura Guardi; a Renaissance portrait gallery offering a bumpy ride of French and Italian portraits and bronzes; a "collector's cabinet" of Limoges enamels,

malolice, glass and the like. The simple upper floors are given over to the French 19th and 20th centuries: a disarmingly simple Fautin-Latour; rooms of fauves and pointillists; Impressionist landscapes; oil sketches, pastels and an entire gallery devoted to Bonnard,

a particular passion of Bernberg. In an inspired move to effect a break between the two distinct aspects of the collection we are taken out of the building at first-floor level and along an open corridor joining the two wings of the house.

From this vantage point we can admire the spectacular courtyard facade and loggia, where Doric, Ionic, Corinthian and Solomonic stone columns complement the flat, rose-pink Toulousean brick. The art looks well enough here, but it is the museum building that steals the show.

Susan Moore

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MEDIA FUTURES

Ethics and your phone book



Tim Jackson

Bodies are everywhere. The sea is a junkyard of mangled ship parts. You scramble for a safe place. There's only about 15 of you left. You huddle together and make a plan. And ultimately, perhaps through some random miracle, your group makes it to safety.

Jump in the present. It is 50 years later. The memory is so strong, you can still taste the salt air. But half a century is a long time, and sadly, you've lost touch with many of the guys who also made it home.

Not many people would guess that the paragraphs above are the beginning of a brochure advertising a piece of software. Fewer still would guess that the package in question is a phone book.

But this is not just any old phone book. It is a phone book on CD-ROM, published by Pro CD, a Massachusetts company, which con-

tains 85m listings - the vast majority of all residential and business numbers in the US - all on a handful of silver discs. It has no music, no animation and no video clips, yet it is one of the most useful pieces of software I have come across for years.

Not only can you use a phone book on disc to search nationally rather than locally, thus getting around the irritating problem of not being able to find a number unless you know which town it is in. You can also search by address, by industry classification, and in reverse from phone numbers to names.

The package is clearly a good way to find long-lost pals from military days. Pro CD claims that the story related above is entirely true, and came to it from a satisfied customer who had tracked down many of his fellow survivors by means of the

company's product. Last month, the Philadelphia Daily News used Pro CD to help an elderly woman suffering from Alzheimer's who had been missing for four months.

She was found wandering the streets, unable to say where she lived. Although police and hospitals had been unable to track down the woman's family, the paper found her daughter in 10 minutes using the Pro CD package.

Until 1990, digitised phone books were the subject of legal wrangling. America's phone companies believed that they owned the copyright over the list of their subscribers' numbers.

That argument was shot down by the US Supreme Court, with the result that anyone can now buy America's telephone listings for \$100, instead of the thousands or tens of thousands that phone com-

panies wanted to charge. Although the US Supreme Court's judgment will seem common sense to most people, BT has successfully used the copyright argument to prevent Pro CD from launching a prod-

uct in the UK. BT's campaign against the Massachusetts company, however, raises an interesting further issue. Is it an excessive invasion of privacy to allow users to tap in a num-

ber and find out whose it is, or to find out who lives at a given address? Britain's telecommunications establishment believes that those things do represent excessive invasion of privacy. The conventional wisdom is that making personal data cheap and universally accessible will allow people to waste our time for more frivolous reasons. But there is a counter-argument. Much of the information in a reverse phone book is already available, legally or otherwise, to those who are willing to go to a little inconvenience and expense to get it.

Those whom we would least want to have access to our personal files - the government, big companies, and psychopaths with time on their hands - already have it. The effect of allowing companies like Pro CD to sell their products freely will merely be to give this information to more, but less sinister, people.

In at least one sense, the new products will strike a blow for personal freedom by tilting the balance of power back from the makers of calls to the recipients. Together with caller ID, CD-Rom phone books can allow people to find out not only the number someone has called from, but also the name and address of the subscriber.

Yet there is another reason for wishing these products to become more widely used - and it concerns junk mail. Most people think of unwanted letters from companies as a symptom of the glut of cheap electronic information. In a sense, however, it is a sign of exactly the reverse: the less that companies know about people, the more likely they are to send information on products that do not interest them.

This week threw up two reminders that correctly targeted junk mail, of the kind that packages such

as Pro CD's can help to refine, has a bright side. One was an e-mail from an FT reader about a relative of his who lives on a remote island and so wanted to receive mail-order catalogues that he tried to opt into junk mail via the Mail Preference Scheme.

The other, which surfaced in a discussion on an Internet mailing list about the privacy consequences of making vehicle licensing data publicly available, was a story told by a resident of Oregon. Out of the blue, he received a postcard from a car repair shop asking: "Does your 1987 Dodge Caravan exhibit the well-known smoking problem?"

Astonished that the company had dug him out of the state's car registrations database by car model and year, the owner took up their offer, and along with the Dodge Caravans of dozens of other satisfied customers, his car no longer smokes. Which goes to show that databases on CD-Rom are a good thing.

Tim Jackson can be reached at Tim.Jackson@pobox.com

Brain opera ushers in a new aria

Victoria Griffith previews a ground-breaking interactive musical performance

Picture this: an electronic billboard outside the Lincoln Centre in Manhattan, New York, welcomes Internet users to attend the musical event instantly via their computers. Cybersurfers can even influence the course of the performance by typing their feelings and impressions on their keyboards.

Inside, ticket holders also help to shape the music by mulling around in a space set up like a nightclub. The more agitated their movements, the faster and rougher the performance becomes. The smoother their gyrations, the more harmonic the sound.

On July 23 next year, this vision will become reality as the Lincoln Centre hosts its first interactive musical performance.

Dubbed "Brain Opera", the project is the long-term dream of Tod Machover, a researcher at the Massachusetts Institute of Technology's Media Lab.

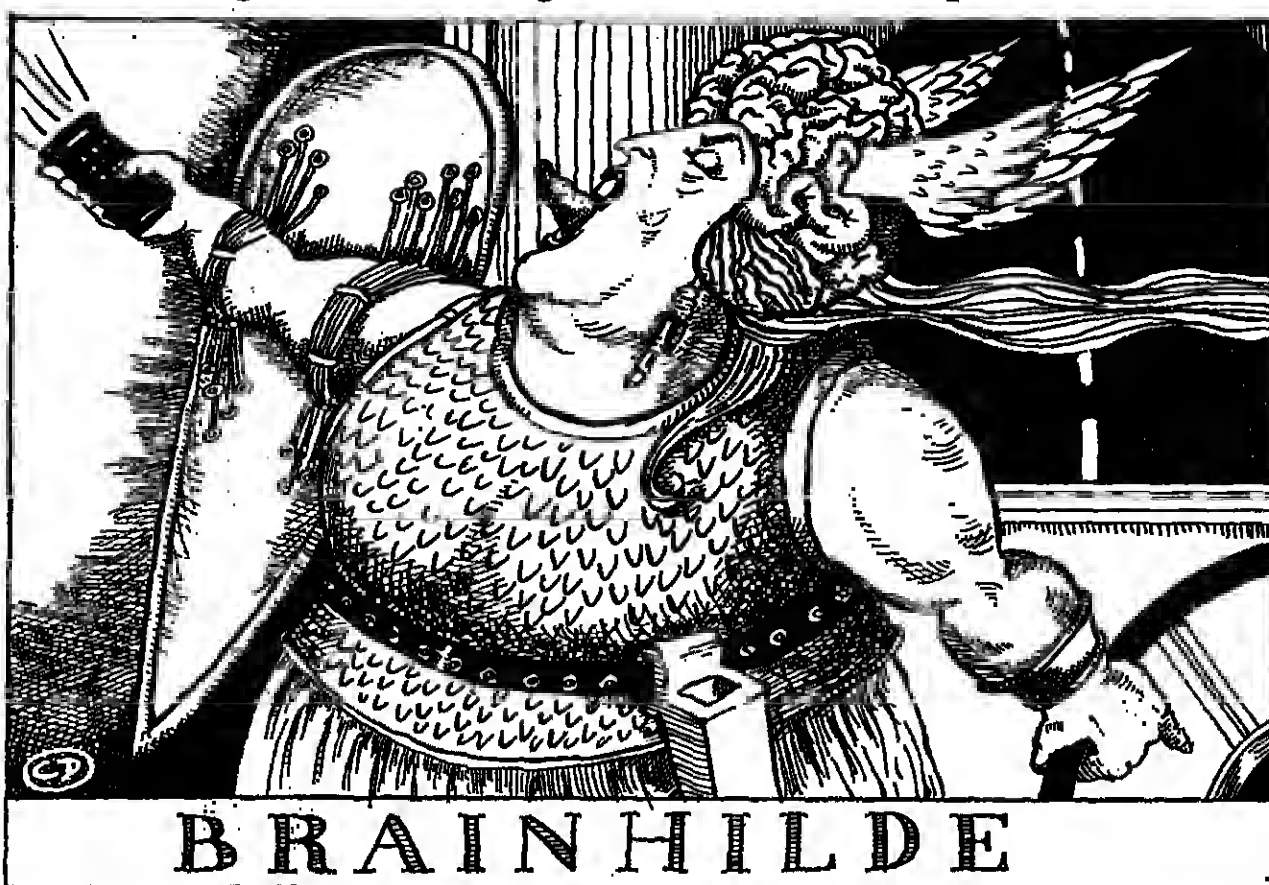
Machover has been preparing for this concert for more than a decade. The youthful, bespectacled computer wizard seems to have the perfect background for orchestrating a true marriage of multimedia and music. His mother was a piano teacher and his father a graphic designer. Machover himself studied cello at the elite Juilliard school in Manhattan before turning to computer work.

Machover's dream is to use technology to turn everyone into a musician. "I was reading this 1983 article by virtuoso pianist Glenn Gould," says Machover, "and I came across a part in which Gould says that in the ideal world, people should be able to attune performance recordings of his work to their own preferences."

"The audience would be the artist and their life would be art," were Gould's words. And it struck me that that is what I'm trying to do: turn audiences into artists."

Machover's first step towards realising his dream was to create hyperinstruments. "The problem with the first computerised music in the form of the synthesizer is that it was even less sensitive to the subtleties of the performing artist than old-fashioned instruments," says Machover. So he set out to create a set of digital instruments.

In 1991, Machover had some success when the internationally acclaimed cello player Yo-Yo Ma used Machover's hyper-cello in a performance.



"We built special equipment into something that looked like a cello to measure his every gesture - what his right wrist was doing, the speed and pressure at which he used the bow, everything," says Machover.

"The piece started out sounding very much like a cello, then got more computerised... A note would hold on a little too long here, a passage would be repeated there." At the end, Ma was just using the instrument to coordinate all the different elements.

Machover's hyperinstruments have evolved further, becoming increasingly abstract. The Sensor Chair, for instance, translates arm and hand movement into mysterious sound textures or pounding percussion patterns.

These are the tools Machover will use in the Lincoln Centre performance, except that, in the interactive event, the audience will have as much say as the performers about the direction the music takes.

The Lincoln Centre project comprises several parts. In the first, the audience will walk around in a hall to prepare. In another, concert-goers will play a video-like game called Harmonic Driving.

Players will sit in front of a screen with a steering wheel, joystick and foot pedal. Hooked up to earphones, users will "drive" through a piece of music. If they stick to the central road, a generic, bland sound will emerge. If they opt for detours and speed variations, the music will become more interesting.

Another activity will allow the audience to add their personal touches. A pivotal element will be the recording of participants' voices. Concert-goers will also be encouraged to experiment with different sounds by "playing" hyperinstruments in the hall.

In the concert's second stage, audience members will move into a night club-like room where they can sit at the periphery or dance at the centre. Machover plans to hook the room up with sophisticated sensors to track the audience's movement, which will be built into the composition.

Three hyperperformers, part of Machover's staff at the Media Lab, will create the concert, incorporating information from the dance hall, the preparation phase, and Internet listeners. "Many parts will be pre-prepared, so it won't be

a free-for-all," says Machover. "But the audience's influence means the piece won't ever be exactly the same."

The most challenging aspect, Machover says, will be incorporating Internet users effectively into the performance. "Computers and the Internet are devised to get people to type in simplified choices like Yes and No. They don't measure emotions very well."

But the MIT researcher says that capturing emotions is vital to the success of the piece. "If audiences are simply offered the choice to vote between faster and slower, or more or less harmony, the concert will become boring," he explains. "It has to be much more sensitive than that, or it's just another video game."

After all, the object is to turn the audience into artists, not video game aficionados. Time will tell if the MIT computer-composer can realise that part of his dream.

A concert incorporating hyperinstruments will be held at Queen Elizabeth Hall, London, next March 7. From March 8-9, hyperinstruments will be on display there. A symposium will be held in the Purcell Room on March 9.

Madonna joins Mozart on the Web

By Louise Kohos

Increasingly, music is striking a chord on the Internet. Whether you are looking for the Beatles, Mozart or the top-selling Alan Jackson country album, you can now sample and buy CDs or tapes from music stores on the World Wide Web.

World Wide Music, the newest and biggest record store on the Internet, opened its virtual doors only recently. The online music shop (<http://www.worldwidemusic.com>) is the creation of the Internet Group, a San Francisco multimedia company.

Visitors can listen to 30-second snippets from up to 200,000 recordings and order CDs or tapes for delivery by mail.

Recorded music may become the first

category of consumer products to generate big sales revenues on the Internet, market researchers predict, because the demographics of Internet users - young, male and affluent - closely match those of the purchasers of music CDs.

Until recently, Internet music stores have been essentially lists of titles. But World Wide Music, as well as offering music samples, will display album covers and suggest recordings that might interest customers based on their history of purchases and the ratings they give music samples they have listened to.

If you enjoy Alan Jackson's *Greatest Hits*, for example, WWW may suggest that you listen to the latest recordings of other country music stars.

WWW is not alone in its efforts to make

music on the Internet. 1-800 Music Now, another Internet music store, recently hosted the first "triple-cast" country music concert on TV, radio and the Internet (<http://www.1800musicnow.com>) to promote its online site where more than 20,000 music samples can be heard.

For devoted Beatles fans, <http://www.primenet.com/hiberry/beatles.html> is the place to go for samples of previously unreleased recordings and much more.

Madonna (<http://www.tbr.com/Madonna>) has also opened a new site this month for the release of her album *Something to Remember*.

Using Real Audio technology, the site will be one of the first where fans can automatically hear music on demand without a lengthy downloading process.

Food and drink index tastes the market

By Stephen McGoonin

Food and Drink Index (www.foodanddrinkindex.com) is an ambitious Internet database service for the UK's food production and retail sectors. Launched last week, it will be rolled out progressively over the next three months. The idea is to provide information, updated daily, on market conditions for fresh produce and bulk products such as drinks, and to put sellers in touch with buyers across the industry.

Mondial, the company behind the index, says that eventually every company involved in the food and drinks industry will have their own page at the index's

site, which they can update themselves. A 30-strong data collection unit and a news-gathering team will also update the site with daily news and industry events. While the calendar of daily events will be useful, it would be helpful if phone numbers allowed browsers to contact event organisers.

Tim Carron Brown, chief executive of Mondial, says that once the system is up and running "the benefits will become apparent very quickly, as well as the risks of not being involved".

Subscription costs 85p per day per service: Food Trader, Wine Trader, Drinks Trader and their daily updates. Included in the sign-up package is a free 28-day

Internet access through Pipex. It is also planned that for an additional charge, users will be able to access an Infocheck credit statement on businesses with which they plan to trade. A range of free services will be available at the Web site for the public, including price comparisons and reviews of imported wines. Also planned is the Trading Floor - a virtual trading exchange for fresh produce.

Everyone in a price sensitive industry wants access to their competitors' trading information, but may not be prepared to give up much of their own. But Mondial is optimistic that development of the index will encourage openness between suppliers and purchasers.

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CANADIAN PACIFIC LIMITED
At a meeting of the Board of Directors held today, the following dividends were declared:
ORDINARY SHARES
A final quarterly dividend of twelve cents (12c) Canadian per share on the outstanding Ordinary Shares in respect of the year 1995, payable on January 29, 1996, to holders of record as of the close of business on December 27, 1995.
PREFERENCE SHARES
A semi-annual dividend of \$0.02 per Canadian Dollar Preference Share in respect of the year 1995, payable on January 29, 1996, to holders of record as of the close of business on December 27, 1995.
BY ORDER OF THE BOARD:
D.J. DEBBAN
VICE-PRESIDENT AND SECRETARY
MONTREAL, November 20, 1995

ARCHITECTURE / SPORT

Twelve schemes display the flower of Muslim design

Colin Amery outlines the benefits of the Aga Khan Award for Architecture

To take an international view of architecture today is a brave and difficult thing to accomplish. In these politically correct times, it is not easy to achieve critical correctness. There are too many possibilities for slipping into the crevices of the architectural debate. How important is tradition? How relevant is innovation to countries in the developing world which look to architects to provide basic shelter and services?

The Aga Khan Award for Architecture is the most important international award which surveys the state of the art of architecture. Wisely, it limits itself to the Muslim world. That does not mean that this limitation restricts the scope of the architectural debate, because both the Muslim world and the development of architecture are taking place in the same late 20th century global village.

The Aga Khan and his advisers saw back in the early 1980s that the oil boom and the spread of western post-war commercial culture created a threat to the social and architectural cohesion of traditional Muslim life.

The Aga Khan award goes back to 1977 and is run in three-year cycles

with fine award ceremonies held in different parts of the Muslim world. Last week the 12 1995 award winners were presented with their prizes and seminars were held in Indonesia at the Sultan's palace in Solo, central Java. Sadly, your correspondent couldn't make the long journey for such a short visit, but I did attend the detailed explanation of the 12 winning schemes held in London at the Architectural Association.

In the past, however, I have attended these elaborate and often inspiring ceremonies, which are deliberately held in places of great historical and architectural significance around the world. Much of the importance of the awards comes from the mixture of architectural and political discussion that takes place under the guidance of a jury that is representative of east and west, Muslim and non-Muslim.

Many of the winners this year represent the active conservation of the Muslim heritage that the Aga Khan wishes to encourage in the interests of cultural continuity. There were 442 entries for this year's award, and the 12 winners were divided by the jury into three categories: projects that address a critical social discourse - these

tend to be conservation schemes; projects that address a more critical architectural/urbanistic discourse; and projects that introduce innovative concepts "worthy of attention". The incredible tall houses and densely decorated buildings of the old city of Sana'a in the Yemen win one of the awards for conservation, and that represents a remarkable triumph. In the 1970s only an international effort could reverse the desertion of the city and the progressive collapse of the mud walls and buildings.

Yet public and private money has made Sana'a live again in a way that once looked impossible. Almost until the end of the civil war in 1990, the whole city had been closed to foreigners for more than 200 years and the minarets, gardens and highly decorated buildings were virtually unknown. The high buildings are the oldest tower blocks in the world, built to catch the breeze and scan the desert.

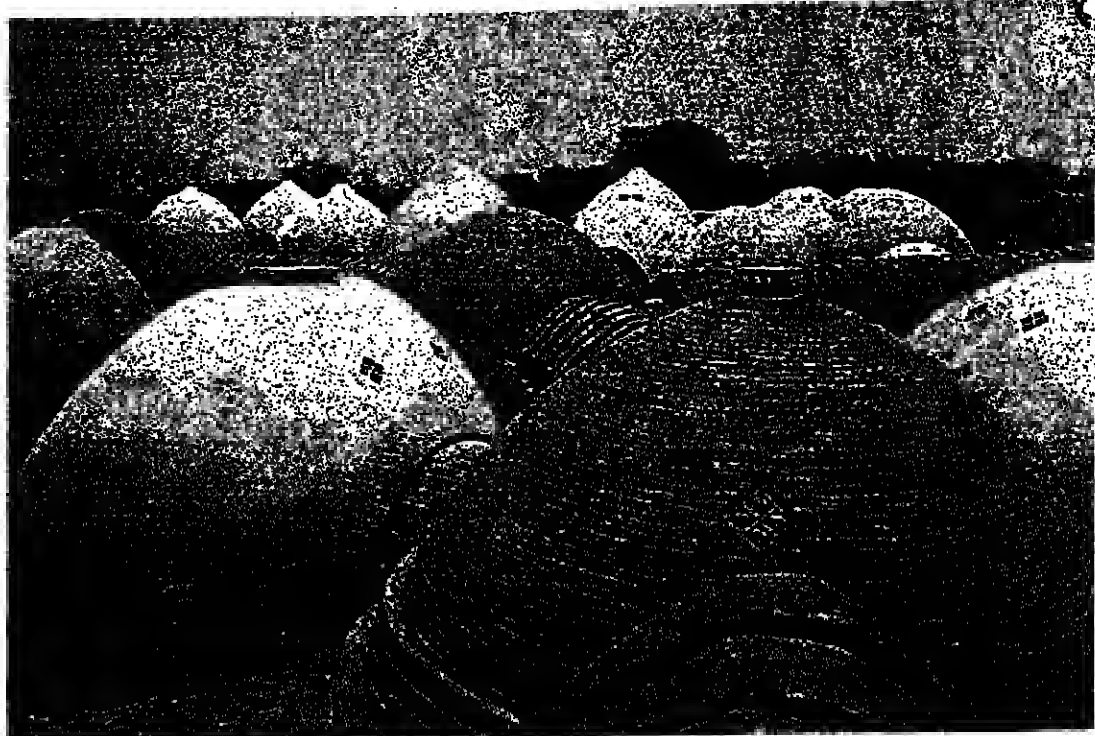
In Tunisia, the award recognises the completion of the rescue of the old medina in the eastern part of the city. Known as the Haifa quarter, it is a traditional area of courtyard housing with white stucco walls and tile decoration. With the help of the World Bank and a

national savings fund for housing, the area has been completely restored and is now 80 per cent in private ownership. It nearly disappeared in the 1960s, and has been saved as much by the revitalisation of the economic base of the area as by conservationists.

Two other cities, Hyderabad in Pakistan and Indore in India, win awards for housing for the poor, both schemes demonstrating that co-operation and the gradual spread of ownership, even at the most modest level, may slowly solve the housing problems of the poorest areas of the developing world.

Architecture only touches the edges of such schemes - services and shelter rightly come first. More artistically inspirational is the award to the old city of Bukhara in Uzbekistan, where the amazing Islamic patterned tile work looks like oriental carpets spread over acres of fine buildings.

When it comes to new architecture, the jury clearly found it difficult to identify a standard set of criteria. The great mosque of Riyadh in Saudi Arabia and the mosque of the grand national assembly in Ankara, Turkey - and indeed the landscaping of the Soekarno-Hatta international airport in



Natural African architecture: the Kaedi regional hospital in Kaedi, Mauritania

Cengkareng, Indonesia - seem to be in the list as much for politico-economic reasons as for their very mixed architectural qualities.

The environmentally "green" tower for the tropical climate in Kuala Lumpur, Malaysia, has an experimental look as it lifts gardens into the air on a concrete spiral. The most interesting of the new buildings is the remarkable Kaedi regional hospital in Mauritania, designed by Fabrizio Caroli and his

firm, which is an association dedicated to the finding of a "natural African architecture".

This is a building I long to see with its mass of brick domes and vaults and its plan in the shape of an opening flower. The project is sponsored by the European Development Fund and in every way it appears a model for what a new hospital should be, and not only in Africa. It emphasises the general principles of this award - that new

buildings should be part of the existing culture, yet offer innovative solutions to contemporary problems. There are a lot of architectural awards, but this one is supported by on-site research and by the Aga Khan courses at Harvard University. It is a model of princely involvement in architecture that shows a deep concern for spiritual and community values, as well as for architectural continuity.

Sinbad's descendants leave yachts in their wake

Racing dhow boats are an extraordinary sight against the high-rise towers of downtown Dubai City, the triangular sails making a sharp angle with soft, billowing curves.

Whereas modern racing yachts favour the muddy brown of Kevlar sails, the dhow boats are as pristinely white as the *dishdashos* of their crews. The hulls are varnished wood, with a shallow dish-shape beneath the water to help them plane across the milky blue chop of the Gulf.

The designs have scarcely changed in 1,000 years, and exist solely in the heads of the master shipwrights who build them from Indian teak. Ironically, the hulls of western

high-performance yachts are coming increasingly to resemble these dhow boats in shape.

Saeed Hareb is going to start the race at 2.30pm sharp. Unlike the Solent or Newport, where pre-start manoeuvring and jostling for position is of supreme importance, these boats sit quietly in the water, sails dropped, waiting for Hareb to launch the smoke flare that substitutes for a start gun.

As yellow smoke fills the sky, the 10-man crews frantically hoist the 65ft yard carrying the sail to the masthead. No winches are allowed, just blocks, tackles and muscle-power.

Once the canvas fills and the dhow picks up speed towards the line, the crews begin the

subtle and continuous task of balancing the boats. Built without a keel or fixed ballast, these large craft are as frisky and tippy as the most extreme racing dinghy.

A western yacht of 43ft would have perhaps 1,200kg of lead or cast iron in her keel, whereas the descendants of Sinbad manage with bags of sand, loaded from the desert floor that day. As wind and waves interact, the crews shift the sandbags - each weighing as much as a sack of cement - to keep the dhow upright and in optimum fore-and-aft trim.

If the breeze drops, then the skipper may call for sand to be dumped overboard to lighten the ship and squeeze a little more speed out of her. It is a gamble, of course, that a squall

won't come and find them out of control and on the verge of capsizing.

Helmsman and crew concentrate ferociously. Dubai's ruling Maktoum family has provided a prize fund of £140,000 for this afternoon's race, with £30,000 of that to the winner. Even as sailing becomes a professional sport, few yachts race anywhere in the world can provide such rewards.

Some of the skippers are young "owner-drivers" who have invested the £40,000 or so necessary to build a state-of-the-art dhow. They can win back the entire cost, and more, in one six-race season.

But others come from the Gulf's leading and wealthiest

families. There are names like Al-Maktoum, Al-Tajer and Zayed on the entry list. Although there are no blazers, this regatta musters as much establishment social clout as anything staged by the Royal Yacht Squadron.

"When our grandfathers used the dhow for fishing and pearling, always there was a little competition to have the fastest boat and to be back in port first," says Saeed Hareb, director of the Dubai International Marine Club and the man responsible for reviving the almost-lost sport of dhow racing.

"When the oil comes people begin to leave the life of the sea. The ruler was very keen that the dhow be kept alive, so we started the racing."

For the first race in 1986, 19 boats entered, most of them semi-antiques. Last week saw 76 craft on the start-line, many of them less than a year old. The biggest race of the season, in Abu Dhabi, will have 150 dhow boats competing.

Since the dhow can neither tack nor gybe (at least not without dropping the sail, a 10-minute operation) the course is a straight line of 19 miles with the wind on the starboard beam.

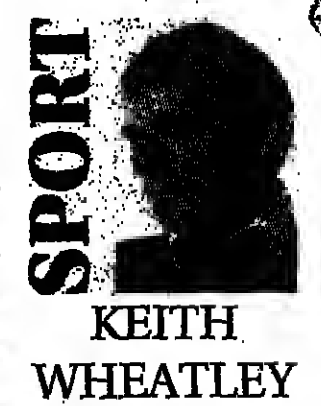
Except that, as any sailor knows, no boat ever sails in a straight line. "The wind was very shifty. We had to go out to the sea first and then come in fast when the wind came behind us," explained winner Mubashir Rashid Fattan, owner of

Mughassas. The dhow has won its last two races and the skipper is the son of a legendary Gulf helmsman.

For those western yachtsmen accustomed to hanging around for hours in the clubhouse waiting for protest meetings or prize-givings, the ceremonies in Dubai were a lightning-swift contrast.

Fattan brought the boat alongside the pontoon, a servant met him with an *attaché* case containing clean *dishdashas* and head-dress, and within minutes the victor was stripped, dressed in immaculate whites and holding a huge silver cup aloft.

Yet in at least one respect, this brand of sailing resembles its hi-tech western counterpart. The planking may be teak,



shaped by hand with an adze, but up aloft technology is making the massive spars lighter and lighter. The British company Carbospar is doing nothing but developing and producing ultra-light lateen spars in carbon fibre for the dhow owners who really want to win.

THE WEEK AHEAD

DIVIDEND & INTEREST PAYMENTS

TODAY
Barclays Bank 9% Bd '99
FFR25.0
Do 12% Sfr Bd '97
£127.50

Blue Circle Inds 4p
CS First Boston Finance Sb
FRN '03 \$30.63

China & Eastern Inv \$0.07
Chubu Electric Power 6.125%
Bd '01 ¥1625.00

Forte 8% Bd '97 £418.75
Galliford 0.5p
Housing Finance 11% Bd
'16 £5.75

Mitsubishi Finance Intl FRN
2000 \$2702.77
NKK 6.2% Bd '02 ¥62000.0

Nippon Telegraph & Telephone
8% Nts '97 \$312.50
Redfern Sterling Funding
10% Bd '01 £108.75

Sarwa Australia Finance Fxd/
FRN '04 \$335.13
Sardar 3.7p

Smithline Beecham Capital
8% Nts '98 £81.25
Societe Generale 7.875% Perp
Sb Nts £78.75

Spraxi Senco Engineering 4p
Tokyo 6.45% Nts '95
¥645000.0

Trans-Tokyo Bay Highway
5% Bd '03 \$287.50

TOMORROW
Abruzzi High Inc Tst 1.6p
Legal & General Finance
6.84% Bd '01 £17.75

Luna Printing Technologies 1.4p
London & Manchester 6.08p
Nippon Telegraph & Telephone
9% Nts '98 \$468.75

Northern Rock Bldg Scty
11% Sb Bd 2000 \$568.75
Premium Tst 2.5p
Trade Indemnity 0.5p

WEDNESDAY NOVEMBER 29
Avonside 1p
Bank of Montreal CS0.33
Bloomsbury Publishing 0.68p

Blue Circle Inds 10% Bd '13
£337.50

Broken Hill Proprietary A\$0.25
Burn Stewart Distillers 3.3p
Hong Kong Inv Tst 1.25p

Murray Ventures 8.4p
NORWEB 150p
Servisair 1.4p
VCI 2.2p

THURSDAY NOVEMBER 30
Adesene 7% Bd '97 £1.25p

Allied Doreseq 5% (3.85%
net) Cm Pf 1.825p
Do 7% (5.25% net) Cm Pf
2.625p

Allied Irish Banks Untd FRN
\$320.89
Do Untd VRN \$183.68

BBA Grp 6.75% Cm Rd Pf
3.375p
BCE Hldgs 0.08p

BNE Resources 2p
BTR Nylex A\$0.055

Bankers Inv Tst 1.03p
Do 3.5% Cm Pf 1.75p

Bank of Scotland 9%
Non-Cum Irred Pf 4.625p
Do 9% Non-Cum Irred Pf
4.675p

Do Untd VRN \$173.78
Bradford & Bingley Bldg Scty
FRN '96 £175.49

Bristol (City of) 11% Rd '08
£5.75
British Aerospace 5p

Capital & Counties 6% 1st
Mort Bd '95/2000 £3.4375

Cater Allen Glt & Fxd Inc
Perp Rd Pf (Gilt Inc Fxd) 20p
Chesamilton Bldg Scty '97
\$154.83

Chesterton Intl 2p
City of Oxford Inv Tst 1.3p

Claythorne 9.5% Sb Conv Un
Ln 2000/01 £4.75
Collateralised Mort Scty (No.5)
Mort Bkd FRN '27 £116.78

Co-Operative Bank 9.25%
Non-Cum Irred Pf 4.825p
Cropper (James) 9% Un Ln
'94/99 £4.50

Delyn 0.5p
Dumyat Inv Tst Conv Mthly Div
0.49p

Dunlop Plantations 6% (4.2%
net) Cm Pf 2.1p
Eksportfinans 7% Nts '98
£72.50

Electric & General Inv 10%
Bd '11 £5.375
Fleming Geared Inc & Assets
Inv Tst 8.3% 13.3% Parig Pfd
6.65p

Fleming (Robert) Netherlands
Prim Cap Untd FRN \$333.39
Forward Technology Inds 1p
Gannore British Inc & Gwrh
Tst 1.95p

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Great Universal Stores 10.5p

Hays 4.75p
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Home Finance (No.2) Cl A
Mort Bkd FRN '30 £117.65
Do Cl B Mort Bkd FRN '30
£216.19

Hopkinson 0.5p
How Grp 0.575p

How Grp 6.25% Conv Pf 4.125p
Hydro-Quebec 15% Ln '11
£7.50

ISA Intl 0.73p
Ivory & Sims ISIS Tst Conv
Ann Sht 5.5p

Johnson Fry 2p
Jove Inv Tst 3.1p
Kleinwort Benson Prim Cap
Untd FRN \$327.24

Do Prim Cap Untd FRN (Ser
2) \$327.24
Kleinwort Charter Inv Tst 4%
Cm Pf £2.0

Lloyds Bank Prim Cap Untd
FRN (Ser 2) \$153.25
London & Manchester 8% Nts
'04 £81.25

London & St Lawrence Inv
3.12p
Macquarie Bank Sb FRN Bd
2000 \$35.90

Maple Mort Scty Cl A1 Mort
Bkd FRN '20 £1428.46
Do Cl A2 Mort Bkd FRN '30
£1753.07

Do Cl B Mort Bkd FRN '30
£1845.32
Mauders (John) 3.25p

McAlpine (Alfred) 3p
Midland Bank 14% Sb Un Ln
'02/07 £7.0

Minergate 10% Cm Pf 5p
NHL (1) Scty Sctd Intl Mort
Bkd FRN '28 £37.83

Nationwide Bldg Scty FRN '85
(1991 Issue) \$14.54
NatWest Bank Prim Cap FRN
Ser C \$151.67

Old Mutual South Africa Tst
2.64p
PEWCO (Treasury) FRN '98
\$8721.09

Portico 2.25p
Peterson Zochonis 7.5% Cm
Pf 3.75p

Do 10% Cm Pf 5p
Peel 5% Conv Non Vtg Pf
2.625p

Persona 1.44p
Prudential Corp 5.3p
RMC Capital Ltd 8% Conv
Cap Bd '06 £43.75

Ragby FRN Aug 23 '97
Rat 3.75p
Do FRN Oct 31 '97 \$5062.50

Do FRN '98 \$15568.47
Refuge 4p
Ricardo 4.3p

Ricardo Grp 1p
Roskel 1.3p
Royal Bank of Canada FRN '05
\$46.48

Russell (Alexander) 1.1p
St. Modwen Properties 8.6%
Cm Rd 2nd Pf 4.25p

Sedgwick 7% Conv Bd '08
£181.25
Senior Engineering 1.37p

Specialises 10% Conv Un Ln
2000 £5.0
Standard Chartered Sb FRN
'98 £86.95

State Bank of NSW 6% Bd
2000 \$A55.0
Sterling Publishing 8% Conv
Cm Rd 'A' Pf 2000 \$3

Standard Sakers Intl 4% Cm
Pf 2p
Sun Alliance 7.25% Conv Sb
Bd '08 £36.25

THFC (Indexed 2) 5.5% IL '24
£2.812p
TMC P.L.M.B.S. 5th Fin Cl Nts
Issue No.6 Aug '28 \$69.40

Do Nts Issue No.1 Aug '30
£175.50
Do 7th Fin Cl A Nts Issue No.8
Aug '31 £77.51

Do 7th Fin Cl B Nts Issue No.8
Aug '31 £189.71
TR City of London Tst 1.42p

TR Smir Cos Inv Tst 10%
Bd '16 £5.25
TSS Grp Sb VRN '03 £183.87

Tate & Lyle 7.25p (net) Conv
Tst 3.625p
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3i Intl FRN '98 £175.46
Throgmorton Tst 12% Bd '10
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Do 7.25% Conv Un Ln '03
£3.625
Trust Union Finance (1991)
8% Bd '06 £4.0025

Urban Mort Bank of Sweden
Sb FRN '01 \$19221.35
Value & Inc Tst 6% Bd '26
£3.83

WPP Grp 0.445p
Waterford Wedgwood UNITS
£10.25p

Wells Fargo Sb FRN 2000
\$50.0
FRIDAY DECEMBER 1

Aberforth Split Level Tst 2.1p
Do Units 2.1p
Alexandra Workwear 2.5p

American Brands \$0.50
American General \$0.31
Amstrad 1.5p

Andrews Sykes Conv Pf 3.5p
Austin Reed 2p
Barclays Bank Non-Cum
Denom Pf Sht Ser C1 \$0.4219

Do Non-Cum Denom Pf Sht
Ser C2 \$0.1406
Do Non-Cum Denom Pf Sht
Ser D1 \$0.4313

Do Non-Cum Denom Pf Sht
Ser D2 \$0.1437
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Carnes 1.25p
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Caradon 7.25p Conv Rd Pf
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Pf 1.75p
Do 4.2% 2nd Cm Pf 2.1p

Coolson 3.5p
Dalgety 13.5p
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DePFA Finance 7% Bd '08
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Dieland Heel 0.5p

ECU Tst 0.5p
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Garton Engineering 1.5p
General Cons Inv Tst 4%
(2.975% net) 'A' Cm Pf
£1.4875

Glaxo Wellcome 8% Bd '05
£43.75
Govett Oriental Inv Tst 5%
(3.5% net) Cm Pf 1.75p

Great Portland Estates 8.5%
Conv Un Ln '02 £4.75
Greencore 8.5% Conv Un Ln
'95 £184.75

Guinness 7% Nts '97 £73.75
Halstead (James) 5.5p
Hamrobs Inv Tst 3% (2.45%
net) Cm Pf £1.225

Harris (Philip) 7% (5.25%
net) Cm Pf 2.625p
Do 8% (5.8% net) 'B' Cm Pf
2.3p

House of Fraser 1.7p
Isstock 0.75p
Jillingworth, Morris (Saitair) 7%
(4.9% net) Non-Cum Pf 1.225p

Inco \$0.10
Ingersoll-Rand \$0.185
Intl Stock Exch of UK & Ire
(Rep of) 7% Mort Bd '90/95
£3.625

Kirklees Metropolitan Council
11.6% Rd '31 £5.80
Ladbroke 2.4p

Lamont 3.65p
Law Debenture Corp 4% Bd
(Perp) £2.25

Legal & General 7.7p
Lewis (John) Partnership 5%
(3.5% net) Cm Pf 1.75p

Do 7% (5.25% net) Cm Pf
2.625p
Lister 5% (3.5% net) Cm Pf
1.75p

Do 4% Bd Rd £2.0
Lombard North Central 6%
(4.2% net) Cm 1st Pf 2.1p

Do 5% (3.5% net) Cm 2nd Pf
1.75p
London (County of) 2%
Consd (In or after 1920) £0.625

Do 3% Consd (In or after
1920) £0.75
Meggit 1.3p
Microvitac 0.4p

OPENINGS

MUNICH

The Lenbachhaus is offering a rare opportunity to view its large collection of paintings by Kandinsky (1866-1944). The exhibition focuses on the years 1903 to 1915, and provides a documentary record of Kandinsky's progress towards abstraction. It opens on Wednesday and runs till March.

The Kunststube is the first European stop for an exhibition devoted to early Chinese oil painting. The 200 objects - many of them uncovered during recent archaeological excavations - illustrate Chinese culture, religious and secular in the ten centuries before Christ. The exhibition opens on Saturday and will later travel to the British Museum in London.

ZURICH

The young Russian soprano Ekaterina Rakhnina, whose talents captivated Glynnwedg, will make her debut at the Zurich Opera house on Saturday. Marco Arturo Marelli's new production is conducted by Arie Sato, and will feature Rakhnina, Juan Pons, Ruggiero Romano and Vincenzo La Spina.

LONDON

"The Break of Day" is now playing at the Royal Court, starring Brian Friel's play and Maria Friedman. Friedman is the author of "Three Birds Singing on a Field" and "The Break of Day", who staged a production of the play during a tour of the Royal Court, and is now playing with the company at the Royal Court.

ARTS

BERLIN

Osaka's Shiro and the Berlin Philharmonic, as part of their Shiro's concert series on Thursday, and Sunday, will perform a concert of Shiro's music. The concert is headed by Giuseppe Gualandini, Raimund Rother and Barbara Fritsch. It comes as the Shiro's music is a wide range of music inspired by the Shiro, and includes "Madness", "Rakshas", and "Shiro's music".

A versatile risk-taker

Stephen Amidon considers the life and work Louis Malle, the French-born transatlantic film director, who died last week

Versatility is not always a virtue in a film director, suggesting as it does that the man behind the camera might be more journeyman than auteur. It is to Louis Malle's lasting credit that he was able to produce a remarkably varied body of work without for a moment appearing to be an eye for hire. Despite working in an assortment of genres and languages, he stamped nearly all his films with his own unique fusion of visual elegance, disquieting intelligence and flinty compassion.

Malle was born in 1932 into an immensely wealthy family. As a teenager in occupied France he was sent away to be educated by the Jesuits, a physically austere yet emotionally rich experience that was to prove the source of some of his greatest work. After the war, he studied political science at the Sorbonne before switching to film, serving a string of apprenticeships that were the stuff of a young film maker's dreams are made of. First, he sailed with Jacques Cousteau on the Calypso, co-directing and photographing the remarkable undersea documentary *The Silent World* (1956). This was followed by a job assisting the great Robert Bresson on his masterpiece, *A Man Escaped*, and then work as a cameraman for the legendary Jacques Tati.

With such an education, it is hardly surprising that Malle's first two films, both released in 1956, would vault him to the forefront of French New Wave directors. *Frantic* was a riveting, atmospheric thriller starring Jeanne Moreau and scored by Miles Davis, while *The Lovers* scandalised movie-goers with its frank portrayal of bourgeois sexuality. However, Malle's affinity with the New Wave was to be short-lived - ill-advised attempts to follow the likes of Godard into French cinema's more turbulent waters resulted in the barely comprehensible *Les deux sexes* (1960) and the off-kilter Bardot vehicle *A Very Private Affair* (1962). Malle was clearly unsuited to surf on anyone else's wave. The rest of his career was to prove him to be a cinematic movement of one.

He distinguished himself from his contemporaries with *The Fire Within* (1963), a dark yet hauntingly beautiful character study of the last days of a self-destructive alcoholic. But, having removed himself from the inner circle of fashionable French cinema, Malle took a while to find his true style - the remainder of the 1960s saw little first-rate feature work from him, although a prolonged journey to India in the

latter part of the decade resulted in several beautifully shot, controversial documentaries that focused on poverty and overcrowding on the sub-continent.

In 1971, Malle came into his own when he directed the first of his two great studies of adolescence, *Murmur of the Heart*, a closely observed, bitter-sweet story of a fourteen-year-old boy's coming of age in a bourgeois household. This was followed by *Lacombe Lucien* (1973), Malle's devastating account of a French peasant who turns Gestapo informant during the Occupation, only to then fall in love with a Jewish girl. It saw Malle at the peak of his understated powers, using simple imagery and deft characterisation to create an unforgettable study of guilt and power.

Malle's next major film charted another change of direction, as he crossed the Atlantic to begin working in Hollywood. *Pretty Baby* (1978) had the dubious distinction of introducing Brooke Shields in the controversial role of a 12-year-old prostitute, though in the end the film proved to be too tepid for its own good. In 1980 Malle married the actress Candice Bergen, strengthening his ties to America. His next two films were undisputed triumphs. *Atlantic City* (1981) was one of the finer movies of the decade, an idiosyncratic, deeply moving account of an ageing gangster which saw Burt Lancaster giving the best performance of the latter part of his career. It also earned Malle one of his three Oscar nominations. Then came another radical departure, *My Dinner with Andre* (1981), a delightful two-hander in which Malle managed to turn two hours of dinner table chat between theatre director Andre Gregory and playwright Wallace Shawn into a dramatic masterpiece.

Malle's next two American efforts, however, suggested that his flirtation with Hollywood had soured. *Crackers* (1994) was a

humorous caper drama set in San Francisco, while *Alamo Bay* (1988) proved to be a well-meaning but uninspired treatment of Vietnamese refugees in Texas.

Any thoughts that Malle's career was in decline were dispelled when the director again changed course, returning to his native language and his wartime childhood to create his greatest film, *Au revoir les enfants* (1987). Set in a Jesuit boarding school in 1944, it tells the story of the tenuous friendship between a privileged young Catholic boy and a Jewish student who is being hidden from the Nazis by the headmaster. Unsentimental yet moving, simple yet profound, it is the quintessential Louis Malle film, as well as one of the great cinematic testaments of youth.

Less successful was *Damage* (1992), adapted from Josephine Hart's sweetly-palmed novel of adultery among the British ruling classes. Although the film has its defenders, Malle's characteristic restraint proved a poor match for the fraught subject matter. Fortunately, he was able to make one more fine film before succumbing to lymphoma. *Vanya on 42nd Street* (1994) was a suitably daring rendition of Chekhov's great play set within the context of a rehearsal in a bare Manhattan studio. It is fitting that the last film by this least conventional of leading directors should be such a risk taker.

Malle's career was not without its failures, though these were always the result of an ambition and daring that is rare among A-list directors. It would have been easy for him to have spent his career churning out well-made French pictures dealing with the bourgeoisie or satirising the bourgeoisie. His decision to stretch himself with nearly every film while retaining a place in the mainstream makes him unique among modern film makers. With his death, world cinema has lost one of its most adventurous spirits.



A still from "Vanya on 42nd Street", Malle's last film



Irek Mukhamedov in the jokey 'Side Show': 'broad fun as the bulgey chap'

Ballet/Clement Crisp

Imagination and artistic thrift

There are times when the Royal Ballet reveals a miserliness, a vein of ultra-careful artistic thrift, which is as unlovely in an opera house as it is in life. Possessed of a grand repertoire - one, I would venture, as varied as any in the world - the company has contrived a new quadruple bill not notable for imaginative generosity.

At Covent Garden on Thursday night we had three scores by Stravinsky - so why not a fourth from the ancestral riches? The exhumation of a Stravinskian frivolity by MacMillan is too inconsiderable for the occasion, especially when his *Baiser de la fin* has been neglected for years. And there is a revival of Ashley Page's clattering *Fearful Symmetries*, when Ashton, Fokine, Massine, Nijinska, lie unconsidered in the vaults.

The evening began with *Apollo*, in a performance so musically denatured as to be more like *Two*

Pigeons. Under Peter Ernst Lassen the orchestra produced sound that made one think "Really, Massenet was quite adventurous for his time." Soupy, slack-rhythm, every bar was determinedly *gentilish*. Balanchine's text, Stravinsky's score, are tantamount to a ritual not a tea-dance, and it is to the credit of Jonathan Cope's Apollo - a big-scaled reading which has a fine and innocent dignity - that the piece made sense. And, to the sound of a Te Deum, Dorey Russell was Terpsichore. Her spiritual and physical sympathy with Balanchine's choreography is remarkable. His dances speak, she hears and obeys, and shows us - I am sure - what he wanted from a ballerina. Sublime shapes, sustained impetus, musical sensitivity: these mark a reading of real beauty.

Such qualities were only partly in evidence with Viviana Durante and Bruce Sansom in Balanchine's

Duo Concertant. It is a duet they have danced well in the past. Now it looks cosy, somehow rote.

The idea of the artist-lover with his muse, which runs hidden through the piece and surfaces in the final romantic section, is decorated with a sweet confidentiality between the couple. Where once they seemed serious, they are now conspirators in charm. Dancing admirably, they offer "interpretation" as well. Fatal. Balanchine used to tell "interpreters" of his work: "Just dance the steps." The playing of Yuri Torchinsky and Philip Gammon was everything the dancing should be: polished, resonant.

Duo was preceded by MacMillan's jokey *Side Show* to Stravinsky's orchestration of his *Easy Pieces*, in the weirdest of juxtapositions. This romp was made for a gala, and featured Lynn Seymour as a battered circus equestrienne at odds with Nureyev as a strong-man. It should

have remained in our memories. Irek Mukhamedov has broad fun as the bulgey chap. Miyako Yoshida shows too much vivacity for a woman whose muscles are as exhausted as her soul.

The evening ends amid the long-distance racket of John Adams's score *Fearful Symmetries*, realised by Ashley Page. The piece is self-consciously "modern", with busy steps, and busy set by Anthony McDonald - coloured shapes whirling in and out like Italian governments. Its manner is as brutish as the costuming, the dancers' energy banging around the stage and ricocheting off their colleagues.

It is Mukhamedov, tearing into the dance like a latter-day Spartacus, who alone makes sense. His duet with Ann de Vos has a wry integrity. The rest of the cast rush hair-raisingly about - motorcycle messengers having nothing to deliver.

INTERNATIONAL ARTS GUIDE

AMSTERDAM

CONCERT
Concertgebouw
Tel: 31-20-5730573
● Messiaen Requiem: by Verdi.
Performed by the Amsterdam Promenade Orkest and K.C.O.V.
Amsterdam, with conductor Martin Kamminga. Soloists include Bernadette Degelin, Margareth Beunders, Ludwig van Gipsgeest and Joep Brocheler; 8.15pm; Nov 28

ATHENS

CONCERT
Athens Concert Hall
Tel: 30-1-7282333
● Gidon Kremer and Oleg Maisenberg: the violinist and pianist perform works by Enescu, Ives, Mendelssohn and R. Strauss; 8.30pm; Nov 28, 29

BARCELONA

CONCERT
Palau de la Música Catalana
Tel: 34-3-2681000
● Philharmonia Virtuosi New York

with conductor Richard Kapp, flutist Claudio Arimany and Meia Tenenbaum on viola d'amore, perform works by Fesch, Barber, Vivaldi, Mozart and Haydn; 8pm; Nov 28

BERLIN

CONCERT
Philharmonie & Kammermusiksaal
Tel: 49-30-254880
● The Israel Piano Quartet and the Dresden Kammerchor: perform works by Ben-Haim, Brahms, Zemlinsky and Schubert; 8pm; Nov 30
OPERA & OPERETTA
Komische Oper Tel: 49-30-202600
● La Traviata: by Verdi. Conducted by Shao Chia Lu and performed by the Komische Oper; 7.30pm; Nov 28; Dec 4

BONN

CONCERT
Beethovenhalle Tel: 49-228-631321
● Orchester der Beethovenhalle Bonn: with conductor Marc Soustrot, the Chor der Oper Bonn, violinist Pierre Amoyal and soprano Kasia Popova perform R. Strauss' "Don Juan", Berg's "Violin Concerto", Dukas' "L'Apprenti Sorcier" and Poulenc's "Stabat Mater"; 8pm; Nov 30

COPENHAGEN

CONCERT
Radio House Concert Hall
Tel: 45-35 20 30 40
● Weihnachtsoratorium (Part 1, 2 and 3): by J.S. Bach. Performed by the Radiosymfoniorkestret and Radiokoret; with conductor/tenor Peter Schrier. Soloists include

Henriette Bonde-Hansen, Randi Sørensen, Ralph Schrier and Robert Hoff; 8pm; Nov 30; Dec 1

GENEVA

THEATRE
Grand Casino Tel: 41-22-7318811
● Monsieur de Saint-Futier: by Dorin. Directed by J.L. Moreau, starring J.C. Braly in the title role; 8.30pm; Nov 28, 29

HAMBURG

OPERA & OPERETTA
Hamburgische Staatsoper Tel: 49-40-351721
● L'Elisir d'Amore: by Donizetti. Conducted by Rainer Mühlfeld and performed by the Hamburgische Staatsoper. Soloists include Inna Mulla, José Bros, Lucio Gallo and Josef Gregor; 7.30pm; Nov 29

LONDON

AUCTION
Christie's Tel: 44-171-8398060
● Impressionist and Modern Paintings, Watercolours and Sculpture, Part 1 & 2: including one of the two bronze versions of Constantin Brancusi's "Le Commencement du Monde" (on sale on Nov 28), as well as works by Monet, Picasso, Bonnard and Degas; 7pm; Nov 28, 29 (10.30am)
CONCERT
Barbican Hall Tel: 44-171-6388891
● Oslo Philharmonic Orchestra: with conductor Paavo Berglund and pianist Leif Ove Andness perform Sibelius' "Finlandia", "Rakastava" and "Symphony No.1", and Beethoven's "Piano Concerto No.4"; 7.30pm; Nov 29

Royal Festival Hall
Tel: 44-171-9604242
● London Mozart Players: with Matthias Bamert and clarinetist Emma Johnson perform works by Ravel, Mozart, Strauss, Takemitsu and Haydn; 7.45pm; Nov 29

St. John's, Smith Square
Tel: 44-171-2221061
● Mark Tanner: the pianist performs Liszt's "Dante Sonata", "Two Consolations", "Nusages Gris" and "Sonata in B minor"; 7.30pm; Nov 28

Wigmore Hall Tel: 44-171-9352141
● Franz Hawlata: accompanied by pianist Helmut Deutsch. The bass performs songs by Schubert; 7.30pm; Nov 28

EXHIBITION
National Portrait Gallery
Tel: 44-171-9060555
● The Lure of the Linelight - James Abbe, Photographer of Cinema and Stage: the first major retrospective of James Abbe's work. Abbe (1883 - 1973) was one of the leading American celebrity photographers of the 1920s and is best known for his iconic portraits of stars of the cinema and stage; from Dec 1 to Mar 24

Tate Gallery Tel: 44-171-8878000
● Picturing Blackness in British Art (from 1760 to the 1990s): exhibition of a selection of works from the Tate Gallery's Collection, aiming to raise questions about racial identity and notions of Britishness. The display focuses on the representation of black Britons of Afro-Caribbean origin; from Nov 28 to Mar 10

OPERA & OPERETTA
Royal Opera House - Covent Garden Tel: 44-171-2401200
● Mathis der Maler: by Hindemith. Conducted by Esa-Pekka Salonen

and performed by The Royal Opera. Soloists include Inga Nielsen, Christiane Oelze, Wolfgang Fassler and Robert Tear; 7pm; Nov 28; Dec 1

MADRID

CONCERT
Auditorio Nacional de Música
Tel: 34-1-3370100
● Lithuanian Chamber Orchestra: with conductor Yehudi Menuhin and the Kaunas Choir perform J.S. Bach's "Mass in B minor"; 7.30pm; Nov 29

NEW YORK

CONCERT
Avery Fisher Hall
Tel: 1-212-875-5030
● New York Philharmonic: with conductor Yuri Temirkanov perform Rimsky-Korsakov's "Russian Easter Festival Overture", Ravel's "Ma Mère l'Oie" and Rachmaninov's "Symphonic Dances"; 8pm; Nov 30; Dec 1 (2pm), 2

Whitney Museum of American Art
Tel: 1-212-570-3833
● Collection in Context - Picasso: a fascination with Picasso has spanned most of the 20th century and stimulated many innovations in American art. Selected almost exclusively from the museum's collection of drawings, the exhibition focuses on three phases of Picasso's work that continue to inspire American artists: Cubism, Classicism and Surrealism; to Dec 10

JAZZ & BLUES
Blue Note Tel: 1-212-475-8592
● Rachelle Ferrell & her Jazz Trio:

featuring Eddie Green, Tyrone Brown and Damon Jewell; 8pm & 11.30pm; Nov 28, 29, 30; Dec 1, 2, 3

OPERA & OPERETTA

Metropolitan Opera House
Tel: 1-212-362-6000
● La Fille du Régiment: by Donizetti. Conducted by Edoardo Guller and performed by the Metropolitan Opera. Soloists include June Anderson, Sarah Walker and Luciano Pavarotti; 8pm; Nov 28

PARIS

CONCERT
Salle Pleyel Tel: 33-1 45 61 53 00
● Orchestre Symphonique Français: with conductor Alexander Symbalidis and pianist Pierre Risch perform works by Rossini, Liszt and Beethoven; 8.30pm; Nov 28

THEATRE
Comédie Française, salle Richelieu Tel: 33 1 40 15 00 15
● Milla Francis de récompense: by Hugo. Directed by Jean-Paul Rousillon, starring Simon Eline, Nicolas Siberg, Dominique Rozan and Catherine Ferran; 8.30pm; Nov 28; Dec 2, 3 (2.30pm), 8 (2.30pm)

STRASBOURG

THEATRE
Théâtre National de Strasbourg
Tel: 33-88 52 17 63
● L'année des treize lunes: by Fassbinder/Martini. Directed by Jean-Louis Martinelli and performed by the Théâtre National de Strasbourg; 8pm; from Nov 28 to Dec 21

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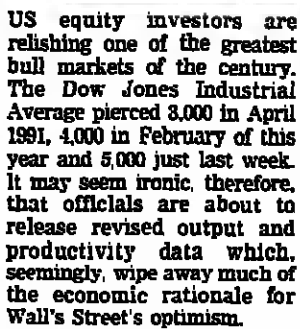
Midnight
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COMMENT & ANALYSIS

Michael Prowse • America

Flying high again

Despite the release of gloomy statistics on productivity growth, the US is experiencing an economic renaissance



US equity investors are relishing one of the greatest bull markets of the century. The Dow Jones Industrial Average pierced 3,000 in April 1991, 4,000 in February of this year and 5,000 just last week. It may seem ironic, therefore, that officials are about to release revised output and productivity data which, seemingly, wipe away much of the economic rationale for Wall Street's optimism.

Statisticians are trying to correct several biases at once, including an overstatement of productivity growth due to a growing discrepancy between income and product measures of gross domestic product. But the change attracting most attention is an innovative shift to "chain-weighted" measures of GDP.

The custom everywhere is to weight the output of various sectors of the economy according to the prices ruling in some "base" year which is periodically updated. This creates a "substitution bias" because the parts of the economy that grow rapidly tend to be those whose prices are falling or rising less quickly than elsewhere. Computer prices, for example, have plummeted since 1987 (the present base year) but the output of this sector is still weighted by the old high prices.

As a result existing figures substantially overstate growth since 1987 while understating it in all previous periods. The chain-weighted indices eliminate this distortion because the weights used in national accounts are continually updated: output at every date is measured according to the price structure ruling at that date.

The adjustments are anything but trivial. On the new measure GDP has grown at an average annual rate of 2.5 per cent in the current upturn, not 3.1 per cent as previously estimated. The official estimate of long-run potential growth has dropped from 2.5 per cent to an unimpressive 2 per cent. Because chain-

weighting also reveals the past in a more favourable light, the new figures undermine claims of a productivity "miracle" in the 1990s.

As the chart shows, on the old figures productivity in non-farm businesses grew at an annual rate of 1.8 per cent, more than double that in the 1970s or 1980s. On the new figures, the productivity improvement virtually disappears. Output per hour now appears to have grown at an annual rate of only 1.2 per cent in the 1990s, hardly any better than in the stagflationary 1970s.

Without disputing the logic of chain-weighting, many economists believe the revised figures may provide a poorer guide to underlying trends than the old data. Statisticians, they say, have removed some upward biases but failed to address downward biases that are arguably more serious. Speaking recently in Chicago, Mr Alan Greenspan, the Federal Reserve chairman, said the new data "will accentuate the seeming conflict between the official statistics and what is suggested by the rather compelling reports of productivity improvement we hear from American businesses".

There are several obvious downward biases. The fact that the consumer price index overstates inflation means that real consumption spending – and hence real GDP – is

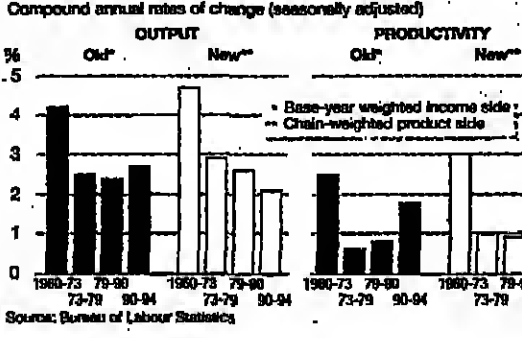
understated. But Mr Greenspan focused mainly on a more profound dilemma: the progressive substitution of ideas for physical matter in the creation of economic value. The most serious bias, he suggested, is the failure of statisticians to recognise an investment that takes the form of wealth-creating ideas rather than physical plant. Corporate outlays on computer software are just as wealth-enhancing as steel mills. Yet by convention they are not capitalised but rather treated as an expense of production. The same is true of many other conceptual inputs, such as workforce training.

Mr Greenspan drew some comforting conclusions for investors. US economic growth is more impressive than conventional figures suggest. And the growing gap between the market and book value of US companies probably reflects understated book values, rather than outrageous equity valuations.

I share Mr Greenspan's optimism. I think US business is leaner and fitter than it has been for decades. Pre-tax corporate profits would not have doubled in real terms in the past three years if productivity growth had not accelerated. But suppose, for the sake of argument, that the official data are correct. I still think the global investment community's partiality for American shares is largely justified.

Conflicting measures of performance

Non-farm business sector Compound annual rates of change (seasonally adjusted)



Source: Bureau of Labour Statistics

Looking at a variety of economic yardsticks, the US has outperformed its competitors by a significant margin in the 1990s.

The supposed Achilles heel of the economy – high budget deficits – is no longer much of a threat. The general government deficit (which includes state surpluses) is already at or below 2 per cent of GDP, the lowest of any large industrial country. Japan and Germany included. Fiscal plans – the proposed balancing of the federal budget by 2002 – are among the most stringent anywhere. Over time, the lower fiscal deficits will lead to lower trade deficits, which are in any case readily financed in today's liquid capital markets.

Other comparisons merely accentuate the US's economic superiority. In the 1990s it has been creating jobs at a rate that puts its rivals to shame. Although much of Europe still endures double-digit unemployment, the US jobless rate has dropped to 5.5 per cent. Yet this has not been at the expense of inflation which has also fallen to an underlining rate of about 2.5 per cent. Broad measures of employment costs are growing at their lowest rates in nearly 30 years – a remarkable achievement in the fifth year of an expansion.

And even on the new chain-weighted data this recovery has been powered by corporate investment to a degree unprecedented in decades. Business investment in durable equipment grew by 16 per cent in real terms last year and by 14 per cent in 1993. Exports, meanwhile, are winning a larger share of overseas markets, reflecting US dominance in many critical technologies such as computer software and telecommunications. I do not know if the astonishing rise in share prices is fully justified, but I do believe the US is experiencing an economic renaissance – notwithstanding the gloom of those grey-suited statisticians.

LETTERS TO THE EDITOR

Number One Southwark Bridge, London SE1 9RH

We are keen to encourage letters from readers around the world. Letters may be based on +44 (0)20 7777 0000 (information) or +44 (0)20 7777 0001 (editorial). E-mail: letters@ft.com. Translation may be available for letters written in the main international languages.

Korea confident of bid to host World Cup

From Park Kyung-Jin

Sir, I feel we must respond to your article on the bidding competition for the hosting of the 2002 World Cup (Cough November 13). Some of the reporting and comment reflects neither the official position of the Korean bidding committee nor the realities of the competition for this great honour between Korea and Japan.

In the final paragraph your sweeping analysis of what "many" Koreans are thinking is misleading. There is no connection between the

bidding for the World Cup and the Asian Games except that they are both great sporting events. The city of Pusan's bid for the Asian Games has already been successful. Now the whole country, including Pusan as one candidate city, dreams of hosting the World Cup. We can guarantee that not a single person in Korea is thinking, as you imply, in terms of the Asian Games as a kind of consolation prize.

If you wished to know how Korea feels about its chances of hosting the World Cup, the simplest course would have

been to contact someone here at the bidding committee. Far from expecting to miss our World Cup goal, we are increasingly confident that the FIFA Executive Committee will recognise that we have both an infrastructure and a football pedigree which make us a strong and credible candidate for the hosting of Asia's first World Cup. The head of the official FIFA inspection team which visited Korea earlier this month concluded that he could not find a single weak point in our bid.

Your correspondents

produced an article based largely on unattributed comment and supposition. Korea has been to the World Cup finals four times. We have proven organisational ability from the 1988 Seoul Olympics. We think we can win this bid fairly and squarely.

Park Kyung-Jin, director of public relations, The Bidding Committee for 2002 World Cup in Korea, Lotte Building, Room 808, 146-1 Sinsong-Dong, Chongro-Ku, Seoul, 110-140, Korea

Scanner invented by EMI

From Mr Colin Woodley

Sir, Tony Jackson's article "The myth behind the miracle" (November 23) includes a quote from Mr Lennie Edelheit, GE's head of research, claiming that his company "invented the CAT scanner" in the mid-1970s, when "very few companies could have done it". In fact, only one company did it – the British company EMI, not GE of the US. In recognition of his outstanding achievement, Geoffrey Hounsfield, EMI senior research engineer,

was honoured by both a knighthood and the Nobel Prize. Subsequently, EMI licensed its many patents in the CAT X-ray medical scanning field to a number of other companies, including GE, as we are sure Mr Edelheit will acknowledge.

Colin Woodley, corporate affairs, Thorn EMI, 4 Tenterden Street, Hanover Square, London W1A 2AY, UK

Clear and useful purpose

From Mr Simon Buckingham

Sir, Michael Prowse wrote an interesting article about higher education ("Endangered species", November 20) in which he calls academics at higher education institutions an endangered species.

Mr Prowse is right to question the role of geographically fixed campuses to which students travel in order to learn. However, his case is more against the traditional university body itself than the academics who teach there. In a technology-based knowledge economy, their expertise is more, not less, valuable, whether delivered in person or electronically.

I share Mr Prowse's doubt about the role of institutions in a world where electronic networks are replacing

physical communities. However, universities are probably the hardest type of institution to criticise. They act as a focal point for information exchange between those teaching and those learning.

All of the resources necessary for learning are available: the libraries, lecture halls and dormitories, and a multitude of different people make use of them. And when the knowledge has been imparted, the students move on, the institution having fulfilled its purpose. If only all institutions had these resources and such a clear and necessary purpose.

Simon Buckingham, Goldwell Drive, Newbury, Berkshire RG14 1HZ, UK

Russian barter reflects poor faith in currency

From Dr Paul Seabright

Sir, Your report that Russian companies are turning to barter because of the stresses of economic reform ("Russian companies strike barter deals as cash dries up", November 23) highlights a phenomenon that is widespread throughout the Commonwealth of Independent States, and represents a significant obstacle to an effective transition to a market economy. But it is not new: it was already happening on a large scale when I began visiting Russian factories in 1992. And although impressions are inevitably anecdotal and official statistics unreliable, it is probably now slightly on the decline in the CIS. Barter seems to be due to several factors. First, the unattractiveness of a depreciating rouble as a means of payment makes suppliers more willing to accept instead the goods that are all cash-strapped firms have to offer.

I recall a leather factory paying its supplier of animal hides in shoes which it received in turn from its large customers. The economic costs of this are high: the leather factory's entire investment budget was diverted into building warehouses to stock its shoes. In effect shoes had become a parallel currency for the entire sector.

Second, in the non-Russian

republics with new currencies that are unattractive even compared to the rouble, barter is an alternative to foreign currency for all companies engaged in foreign trade, which is a large number given the historical specialisation of the Soviet Union.

Third, shortages of food and consumer goods have turned companies into lifeboats for their employees who would otherwise be at the mercy of an unpredictable market economy: several thousand people together can barter more effectively than one. So managers devote their time to searching out available commodities on behalf of their workforce, or at the insistence of their suppliers. A shoe factory in Tashkent pays its suppliers in porcelain, tomato paste and pasta; the director of a consumer goods factory admitted stoically to me that pilfering of unsaleable goods from the stock room was a useful supplement to employees' miserable wage packets.

Nothing demonstrates better the cost of a collapse of faith in a currency, and the fact that stabilisation is an essential precondition for market reforms to have a chance.

Paul Seabright, faculty of economics and politics, University of Cambridge, Cambridge CB3 9DD, UK

No evidence that market for scientists is shrinking in UK

From Prof. Robert May

Sir, Professor Steve Fuller (Letters, November 21) regrets that, in writing of science as "The force behind a dramatic century" (November 13), I failed to acknowledge that the "rate of unemployment [among UK university students who graduate with science degrees] is close to twice" the national rate of unemployment.

It is true that in science and engineering, as in most other disciplines, the percentage of graduates believed unemployed just six months after qualifying has been relatively high. Specifically, the UK "all subjects" average for such six-months-out

unemployment in 1993 was 12 per cent, with the figures in the sciences ranging from 5 per cent (in subjects allied to medicine) to 14 per cent (in the physical sciences, mathematics and computing). Prof Fuller presumably had in mind a comparison of these figures with the overall UK unemployment rate of 9.8 per cent in 1993.

But such a comparison is, I think, highly misleading. The broader and more accurate picture is that, over time, people with a higher education qualification in science and engineering are just as employable, and indeed more so, than those with a higher

education qualification in any subject. Specifically, the percentage unemployed among those with science and engineering qualifications was 3.9 in the spring 1994 Labour Force Survey, compared with 4.5 per cent among all those with higher education qualifications. A similar picture emerges from 1991 census data and from a survey of the Employment Department in the 1980s.

In short, Prof Fuller's strident claim that the labour market for qualified scientists and engineers is shrinking is not supported by the evidence, and serves only to perpetuate a damaging myth about their

employability. Certainly, I would like to see more science and engineering jobs generated by research and industry working successfully in partnership. But scientists and engineers have a valuable role to play in many other occupations in industry, commerce and the public sector. It is clear there is some way to go before that is widely understood and appreciated.

Robert M. May, chief scientific adviser, Office of Science and Technology, Albany House, 84-86 Petty France, London SW1H 9ST, UK

Mourners for the Soviet empire

It is now almost four years since the creation of the Commonwealth of Independent States marked the final demise of the Soviet Union, and brought independence to the central Asian peoples conquered by Russia in the 19th century.

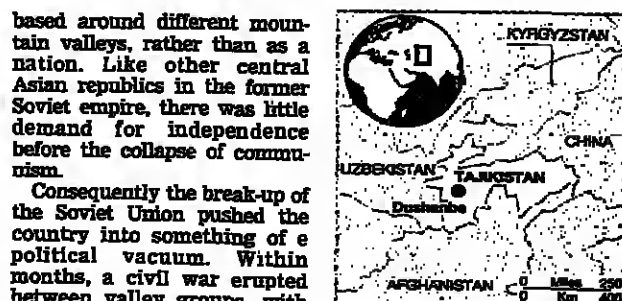
Many Russians mourn the end of Moscow's empire, which had conferred a superpower status on their country. But some of those that most regret the break-up of the Soviet Union can be found 2,500km from Moscow, in the poor and mountainous republic of Tajikistan.

The Tajik population is overwhelmingly Moslem, with language and culture similar to those of the Kazakhs and Afghans. They have little in common with Russia, apart from their recent history. But as part of the Soviet Union, Tajikistan received economic assistance and enjoyed peace.

Political independence has left the country subject to the military whims of Russia, economically bereft and politically divided. Many Tajiks, from peasants to politicians, increasingly say they would love to return to the Soviet Union – and point out that they never demanded independence in the first place.

When the Soviet Union split up in 1991, Tajikistan, like most central Asian republics, had only a limited sense of national identity – it had not existed as a state until Stalin created it in the late 1920s. Most Tajiks considered themselves part of regional groups

The central Asian republic of Tajikistan regrets the loss of peace and of economic assistance, writes Gillian Tett



of drugs, Islamic fundamentalists and guns sweeping into the Russian Federation. However, Russian military intervention has not been matched by economic support. Tajikistan – almost uniquely among the former Soviet republics – wanted to remain in the Russian rouble zone. Tajik leaders argued that the country was too poor and too small – with a population of only 5m, half that of Moscow – to support a new currency. But Russia refused to supply the republic with the necessary roubles.

At the beginning of the summer, therefore, the republic was forced to introduce its own currency – poignantly named the "Tajik rouble". It promptly slid in value.

However, conditions might improve. The International Monetary Fund has agreed a \$22m package of support for the new currency, and western

mining concerns are starting to invest in the region, which has deposits of gold and silver.

But the confusion over monetary union has exacerbated the republic's economic decline. Trade with Russia has collapsed, falling to 50 per cent of its Soviet Union level.

Nor has Moscow been prepared to use its influence to bring a decisive peace to the warring factions. Over the past 18 months the government has conducted United Nations-sponsored peace talks with the opposition. A compromise could probably be reached if the Russians exerted pressure on the Tajik government to make concessions – simply by threatening to withdraw its troops. However, talks remain almost paralysed amid a military stalemate: although the current Russian deployment is too big for the opposition to beat, it is also too small to destroy the opposition.

Some western diplomats believe that Russia is pursuing a deliberate policy of destabilisation, to keep the edges of its former empire too weak to threaten Moscow. Others say Russia's approach simply reflects splits in the government between hardline generals and more liberal diplomats. Whichever is true, Tajikistan has been left floundering. The real tragedy of the Soviet collapse has probably hurt ex-colonies like Tajikistan far more than Russia itself.

FT

FINANCIAL TIMES

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COMMENT & ANALYSIS

FINANCIAL TIMES

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Monday November 27 1995

Breaking the Ulster impasse

On the eve of Mr Bill Clinton's visit to Belfast this week the British and Irish governments remain at odds over the next step in efforts to turn the present ceasefire in Northern Ireland into a durable political settlement. The failure of Mr John Major and Mr John Bruton to settle their differences in a meeting in London last week is a considerable disappointment for the US president. Mr Clinton, a successful mediator in Bosnia and the Middle East, would like his visit to be the occasion for a significant advance towards all-party negotiations in the province.

The implications of the impasse, however, extend beyond the frustrated hopes of the president. Agreement between London and Dublin on a framework for political talks is a vital step on the still perilous road to a permanent peace in Northern Ireland. Mr Major and Mr Bruton are agreed on the basic thrust of the so-called twin-track approach. Under this formula all parties in the province, including Sinn Féin, would join preparatory talks on a political settlement. Simultaneously, an independent body headed by Mr George Mitchell, an aide to Mr Clinton, would examine the question of the decommissioning of IRA and loyalist arms. The intention would be that by February or March of next year sufficient progress would have been made to allow full-scale constitutional negotiations between unionists and nationalists.

Standing in the way of a joint statement to this effect is a dispute over British, and unionist, insistence that the IRA must decommission at least a small part of its arsenal before Sinn Féin can be admitted to these latter negotiations. Under pressure from Sinn Féin, Mr Bruton wants this pre-

condition dropped. Mr Major insists that without it, the unionist majority would boycott the planned talks.

It is not difficult to see how the two leaders could choose to circumvent this obstacle rather than to continue to bang their heads against it. Mr Major could accept that the issue is put on one side while the decommissioning body carries out its work and the preparatory talks get under way. If, and this is an important qualification, Sinn Féin then demonstrated in other ways an unshakeable commitment to peaceful means, the condition might later be modified or dropped.

Meanwhile, Mr Bruton could present this as an important opportunity for Sinn Féin to secure the place it seeks at the negotiating table. There would be risks but Mr Bruton's political authority has been enhanced by the endorsement at the weekend of his constitutional amendment to allow divorce in the Republic. Last-minute efforts are being made to agree such a formula on decommissioning before Mr Clinton travels to Belfast on Thursday. If the attempt fails for lack of time, the two leaders should resolve to meet immediately after the president's departure.

For his part, Mr Clinton can best serve the cause of peace by intensifying the pressure on Sinn Féin. In a BBC television interview yesterday, Mr Gerry Adams, the Sinn Féin president, declared that it would be impossible for him to persuade the IRA to give up any arms in advance of a constitutional settlement. That may or may not be true, but there is nothing to stop the Sinn Féin leadership from declaring that it will never again prefer the Armalite to the ballot box.

South of Europe

A conference starting today in Barcelona will focus attention on some important issues between the EU and the countries on its southern border. It brings together ministers from the Union and its neighbours on the Islamic shore of the Mediterranean, from Turkey to Morocco.

After a period in which the Union's attention, when not directed at its own navel, was focused eastward, these countries share an interest in pointing it south. Recent terrorist attacks in France, stemming directly or indirectly from the civil war in Algeria, are an unwelcome reminder that southern Europe cannot ignore events on the other side of the Mediterranean. If "European Union" means anything, it must mean that northern Europe cannot ignore them either.

Yet one should beware of false comparisons between the countries of the Middle East and those of central Europe. The southern states are Europe's neighbours, the eastern ones integral parts of Europe with a desire to become EU members. One does not have to be a racist or religious bigot to accept that. Only Turkey, with which the EU is to start an expanded customs union, can be considered a borderline case.

If any balance between south and east is to be struck, it must be between the Mediterranean and central European members of an enlarged EU. There might also be

an analogy between the southern and eastern neighbours of that enlarged union - that is, between the Middle East and the Commonwealth of Independent States. The EU has a strong interest in the stability of both areas.

In the case of north Africa, south Europeans tend to stress the need for financial support, knowing that this would come mainly from northern Europe, while north Europeans stress the importance of market access, knowing that it is south European farmers who would suffer most from north African competition. The Barcelona conference will strike a kind of bargain, since at last summer's Cannes summit the EU agreed to spend nearly €6.4bn (\$8.2bn) in the region by the end of the decade plus the equivalent in soft loans from the European Investment Bank. This money should be spent cautiously. If public money were the solution to north Africa's problems, Algeria would not be in its present state.

What north Africa and the Levant need most is private investment, both foreign and domestic. Some progress has been made, particularly in Jordan, Morocco and Tunisia, towards creating investment-friendly conditions. The EU must encourage this by making both market access and financial assistance strictly conditional on a more liberal regime, including intra regional free trade.

Weak imitation

The Japanese finance ministry flattered the US last week with the news that it is to set up a US-style Resolution Trust Corporation to rescue the country's collapsing banks. The creation of a Japanese RTC might be taken to mean that the authorities had finally decided to emulate both sides of the US approach to its earlier financial-sector crisis: not merely looser monetary policy, but the acceptance of large-scale public bail-outs. As ever, though, the imitation is halfhearted.

The Japanese were late in applying the first lesson from the US experience of the early 1980s: the curative power of a loose monetary policy in allowing banks to grow out of their debts. But the encouraging results for Japan's leading banks announced last week showed that this year's cuts in short-term interest rates are already having the desired effect.

Japanese officials have found it even harder to swallow the second lesson from the US: the need for an orderly approach to disposal of insolvent institutions through the use of a tailor-made vehicle, in the case of a tailor-made case, the RTC. For all its faults, and cumulative cost to the public purse, the RTC was a success. It disposed of loans

quickly and, given the scale, remarkably smoothly.

The total cost of resolving Japan's problems could be up to three times larger as a share of GDP. But the news that the country is to have its own RTC is encouraging. At the least, it might signal official recognition of the need for a co-ordinated, transparent approach, instead of the previous mix of concealment and forbearance. Yet the details remain undeniably vague, not least about how it should be funded.

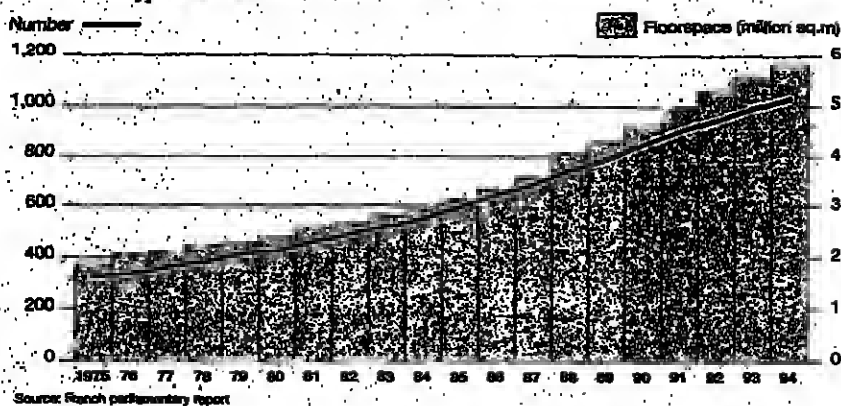
In the meantime, the finance ministry has an even more urgent mess to clean up in the housing loan corporations, which it has pledged to deal with by the end of the month. Losses in this sector are now estimated at more than ¥7,000bn (\$70bn). The banks have so far looked set to bear most of the cost, but officials may test public support for helping the banks, by launching a housing loan lifeboat.

The uncertainty over funding casts a shadow over the banking sector, which could undermine the good work being done by monetary policy. Large sums of public money will be needed. If it is left to the banks the underlying problem will not be resolved for years.

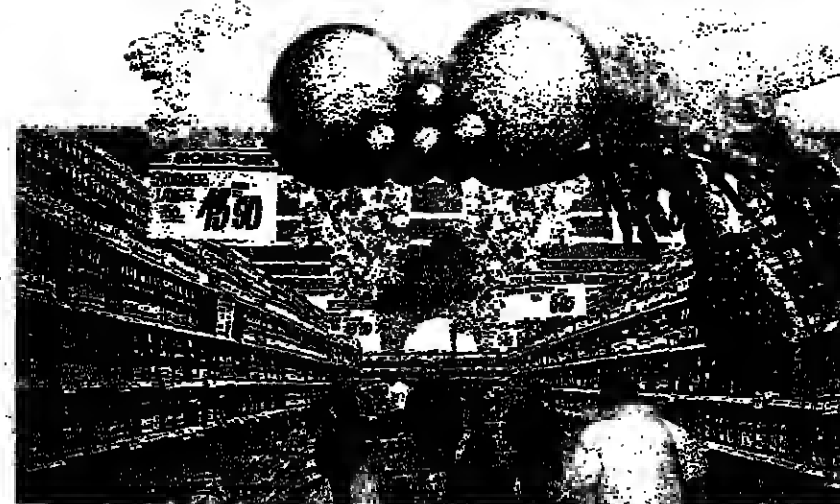
France: a nation of shopkeepers



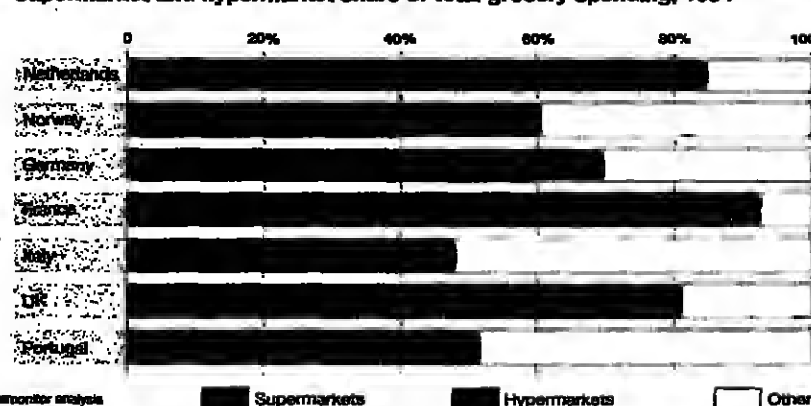
Growth of hypermarkets



Source: French preliminary report



Supermarket and hypermarket share of total grocery spending, 1994



Source: Datamonitor analysis

France's new foreign legion

Restrictions on hypermarket developments are encouraging French retailers to shop around overseas, say Neil Buckley and Andrew Jack

The battle is on to save the patisseries, boulangeries and charcuteries of France from the giant hypermarkets and shopping centres that have marched across the French countryside over the past three decades.

Mr Alain Juppé, the French prime minister, will today announce the government's latest policy on the retailing sector. He is expected to unveil tight restrictions on hypermarket developments, while allowing some renovation and the opening of other types of large-scale retail project.

Such an announcement would disappoint big French retailers and encourage them to accelerate international expansion. "Today, in France, it is impossible for us to open new hypermarkets," says Mr Christophe Dubrion, chief executive of Auchan hypermarkets, one of the country's largest chains. "But, paradoxically, perhaps that is an opportunity. It means we are forced to go international."

A moratorium would be particularly galling for large retailers, since they had been hoping for a more liberal line on out-of-town projects from the new government. Many initially expected Mr Juppé to end the temporary freeze on large retail planning consents imposed by Mr Edouard Balladur, the former prime minister, in April 1993. The freeze has already slowed to a trickle the once explosive growth in large stores. This saw 3.5m sq m of hypermarket space alone built between 1975 and 1993. The severity of the freeze makes planning restrictions on out-of-town development imposed across the Channel by the UK government look halfhearted.

While the debate over out-of-town development in the UK and countries such as Germany with tight planning constraints has centred on preserving town centres, in France

the debate ranges more widely.

French hypermarket operators are accused not just of destroying high streets. They are attacked for blotting the landscape with large concrete and steel boxes - and indeed, the proliferation of retail parks complete with neon signs and drive-in McDonald's restaurants has left parts of the Gallic countryside resembling the US Midwest.

At the same time, big grocery groups are charged with creating unemployment by killing off small shops, farmers and manufacturers through cut-throat terms of trade.

Mr Pierre Seassart, president of Assemblée Permanente des Chambres de Métiers, a body representing artisans and small business, says large retailers have "destabilised" small traders by creating huge purchasing centres which allow them to charge very low prices. "The power is no longer with producers but with retailers," he says. He calls for an even tougher clampdown on new large-scale retail development, plus firmer policing of prices, to prevent them being set at unrealistically low levels.

An added twist to the debate is that some French grocery retailers have been under investigation for alleged corruption. Directors of three big French retailers were recently questioned by police over allegations that companies made political contributions in the 1980s in return for planning consents.

In their defence, hypermarket and supermarket operators say they support farmers and manufacturers, and that curtailing retail development will damage the economy.

Mr Daniel Bernard, chief executive of Carrefour, France's biggest grocery retailer, says his group is a partner to industry, agriculture and 2,500 small and medium-sized businesses. He says it sells many local specialties that would otherwise have died out.

"Modern retailers are a big engine

for the total chain of consumer goods," he says. "We are very competitive, we take only a small profit on the goods, so we can distribute more buying power to the nation - which means there is more [demand] for products."

Mr Bernard argues that his company cannot be held responsible for the trend towards urbanisation that has been apparent in France since the second world war. This has resulted in the depopulation of rural areas and the inevitable closure of services, including shops, as their customer base has declined.

He believes many of the small shops that were forced to close when hypermarket development began in the 1960s provided poor service. Those remaining, he says, are stronger and more efficient. Some observers feel that large French retail groups, many of them until recently family-owned, need to brush up on their public relations. According to Mrs Denise Larking Coste, executive vice-president of CIES, the Paris-based "Food Business Forum" whose members include retailers and food manufacturers: "One problem for the retail industry is that it has not got its message across about how much [large retailers] have done for the economy," she says.

Property developers, meanwhile, argue that shopping centres should not be lumped together with hypermarkets in the present debate. "When we build a regional [shopping] centre we always give some priority to local retailers," says Mr Léon Bressier, chairman of Unibail, one of France's largest shopping centre developers. "We are not destroying them but creating opportunities for them."

The most obvious way for French retail groups to respond to a moratorium on out-of-town hypermarkets would be to make older stores work harder by improving product ranges and store environments to

attract more customers. Some may also consider extending the existing outlets, although that would require planning permission.

Another option would be to acquire competing stores or chains. Indeed, a series of takeovers has already altered the structure of the industry. Carrefour acquired two chains in financial difficulties - Montlaur and Euromarché - in 1991, while Casino, another large grocery retailer, bought the ailing Rallye group the following year.

Analysts now suggest that Casino could itself become a takeover target. So could Cora, a medium-sized grocery retailer. Many believe the big chains might also target the 40 per cent of French supermarkets and hypermarkets that are independently-owned. This is an unusually high proportion by western European standards.

"We will buy more stores from other people than we do now," says Mr Christian Toulouse, chief executive of Docks de France, operator of Mammouth hypermarkets and Atac supermarkets. "It will be expensive, but we will do it."

The final, and potentially most exciting, avenue for the large retail groups is international expansion. French grocery groups are already among the most international in the world - three of the top five retailers in neighbouring Spain are French-owned - and they plan to spread their tentacles further. Carrefour, after 30 years of international development, passed a landmark in August, for the first time operating more hypermarkets outside France (117) than in its home country (116).

Carrefour has not been successful in every overseas market: its attempts to branch out into the US and UK in the 1980s ended in failure. However, its Pryca subsidiary is Spain's second-biggest retailer. The group also has stores in Italy, Portugal, Turkey, Argentina, Brazil,

Mexico, Malaysia, Thailand, Taiwan, and, since last month, in China. It expects to increase the proportion of turnover coming from outside France from 40 per cent to well over half by 2000.

Promodés, France's second-biggest grocery retailer, is Spain's third-largest retailer, through its Continental subsidiary. It also has stores in Germany, Greece, Italy, Turkey, Morocco and Mauritius. Auchan is the number four retailer in Spain, with 21 Alcampo hypermarkets. It has stores in Italy and Portugal and plans to open in Poland, Hungary and Mexico.

Even a medium-sized retailer like Comptoirs Modernes, a supermarket group, talks confidently of moving into Brazil and Argentina.

French grocery groups believe they have created flexible store formats that can easily be adapted to overseas markets and filled with locally-produced goods. Such an approach would contrast with that adopted by UK retailers, such as Marks and Spencer, J. Sainsbury and Tesco, whose stores rely heavily on own-label products.

Although still interested in acquisitions in established markets, French retailers believe the highest opportunities may lie in less mature markets such as eastern Europe, South America and Asia. "We can start with a developing country at the bottom of the [economic] curve, and grow with the country to the top of the curve," says Mr Bernard.

Carrefour, he adds, will open stores in "any country where people like good food - especially fresh food, as the French do".

While hypermarkets may be accused of killing off high streets, Mr Bernard would like to be exporting the spirit of the patisserie and boulangerie to the rest of the world.

OBSERVER

Derivatives are infectious

On the day that Nick Leeson, trailing a pack of media scandal hounds, was charged in Singapore with the misdeeds that broke Barings, another banker cut down by the derivatives game was retreating ignominiously into retirement on the other side of the world.

Seppo Lindblom, chairman and chief executive of Finland's Postipankki, announced on Friday that he was bringing forward the date of his resignation by a month to January 1. His decision apparently derives from his having had enough of the media criticism that has rained down on him since it was revealed earlier in the year that the bank's New York office had lost more than \$100m in derivatives and other exotic securities trading.

"I have never thought of myself as an easily scared person," Lindblom said in a statement to employees and the press, adding that he will extend his recent sick leave up to his resignation date. He continued: "However, I have lately met with a treatment in public that strongly conflicts with my sense of justice and moral conception."

Sympathy for Lindblom, a former government minister, is not great in Finland. He was considered to have survived four previous successive years of losses

at the state-owned bank - prompted by crippling credit losses - only because of his political connections.

When the derivatives losses were revealed he at first tried to hang on. But his explanation - that he did not know what had been going on in New York - hardly justified confidence in his stewardship of the bank. He was still at it in his statement on Friday, protesting that what had happened "came as a total surprise to me".

Crustacean politics

Mahathir Mohamad, Malaysia's leader, makes no apologies for encouraging super rich businessmen in his country. Delegates at a weekend convention of his United Malays National Organisation - the country's dominant political party - expressed concern about a small group of business moguls with high-level political connections, doing very well when it comes to obtaining government contracts. Nonsense, said the prime minister. Such people had to be encouraged in order to sustain Malaysia's high-speed growth, and they should get their reward. "We cannot give lobsters to everyone."

Attention seekers

Competition is breaking out in the arcane world of Swiss

competitiveness analysis. Klaus Schwab's World Economic Forum and the International Institute for Management Development in Lausanne have decided to end their annual collaboration over the World Competitiveness Report, the ranking of international economies. The protagonists insist that "this decision in no way detracts from the good relations and mutual respect that the World Economic Forum and IMD have always enjoyed". Just in case anyone thought otherwise.

Both institutions will now produce their own reports - the WEF concentrating on macroeconomic and geopolitical indicators and the IMD on microeconomic and management ones. The custody battle over the name of the existing report has clearly proved inconclusive, with the confusing result that the WEF's new baby will be called the Global Competitiveness Report and the IMD's is to be named the World Competitiveness Yearbook. Given that neither now has a track record, we can perhaps safely ignore both.

It's a tragedy

Observer loves the annual World Travel Market trade fair which recently ended at Earl's Court in London; it always produces such valiant attempts at the English language. This year's winner is from *Wolfram to Prague*, the city's official guide book:

"Among the most beautiful what was written about love belongs tragedy Romeo and Julia by William Shakespeare which reliably addresses the audience already for 400 years. When actor and director Tomas Topfer arrived with the idea to perform this renaissance but always Shakespeare story and present it in the authentic renaissance setting of Prague Castle, he had no doubt about the success of his project. But neither him nor the art agency Foibos did not anticipate that his performance would gain so much of the audience favour. That is the reason why the immortal Shakespeare drama about romantic love of Venice lovers Romeo and Julia... appears in the programme of Prague cultural summer also this year... it looks like written by Shakespeare just for this place."

Very poor research

Full marks to the student activists at Paris Dauphine, one of France's better regarded business schools. They have expressed their solidarity with fellow students engaged in strikes and sit-ins around the country. Just one problem: the students' main gripe are under-funding and a distaste for competitive university entrance exams - and Paris Dauphine is well-known for having a highly selective entry system. Still - no point in letting facts get in the way of a bit of healthy militancy...

100 years ago

The Italian Budget The Budget speech of Barolo Sonnino almost leads one to suppose that the finances of Italy have crossed the Rubicon which separates the land of deficits from the region of surpluses. The revenue of the country is weighed down by the military expenditure imposed upon it by the necessities of the Triple Alliance, its ambitious colonial policy in Africa swells the charges of the nation with very little hope of an immediate return. The banking system is still in process of regeneration, the currency difficulty has not been finally overcome, and the people are heavily taxed. In spite of these obstacles, the Finance Minister is able to show a paper surplus for the year 1895-96 of 1,270,000 lire.

50 years ago

Swiss trade outlook Most of the arrangements made so far by the Swiss authorities must remain one-way affairs for a time. But they are prepared to pay this price in order to make a contribution to the revival of European trade. The arrangement with France gives that country a credit of 250,000,000 francs, half of which is to be used freely for purchases in Switzerland.

Government hints at minor modifications to plans

French unions to strike again on welfare reform

By David Buchanan in Paris

French unions will tomorrow start a second wave of national strikes and protests against welfare reforms, which the government said over the weekend could be subject to minor modification.

Mr Alain Lamassouze, the government spokesman and budget minister, said that while "on the one hand, the government is determined to reform the social security system, on the other hand, it is determined to ensure that the means of applying it every thing will be negotiated".

Lending impact to the anti-welfare reform protests has been a separate strike by SNCF rail workers against planned cuts and productivity measures. Rail services were severely curtailed by the stoppage at the weekend.

The rail unions yesterday agreed to meet Mr Jean Berenguer, the president of the SNCF, to be briefed on SNCF's new five-year contract with the state. After the meeting, union leaders

expressed disappointment and said they would recommend to members to pursue strike action.

Tomorrow's fresh round of strikes have been called by the Force Ouvrière (FO) union federation in protest at the government's proposed changes in the health insurance system.

Friday's strikes, which brought big demonstrations on to the streets of many provincial cities as well as Paris, were aimed at proposals to prolong public sector workers' pension contributions.

Mr Marc Blondel, leader of the FO, complained yesterday that the government should take its eyes off the financial markets and start "looking at what was happening on the streets and satisfying the demands and needs of the people".

Yesterday only one in four mainline trains ran and for the first time the Paris-London Eurostar service was badly affected. The rail unions have been encouraged by the big union fed-

erations to keep their strike action going at least until today in order to keep up the momentum of anti-government protest.

The financial details of an assistance plan are to be finalised by Mr Alain Juppé, the prime minister, later this week, but the government has indicated that it is ready to make a generous initial gesture to help SNCF repay its enormous FR17.5bn (\$35.9bn) debt, provided that rail workers improve productivity.

In a newspaper interview yesterday, Mr Jean-Claude Trichet, the governor of the Bank of France, expressed confidence in the government's strategy to cut budget and welfare deficits, which he said had led the central bank to reduce interest rates three times in recent weeks.

"This fall is not artificial," Mr Trichet said. "It is founded on facts - a solid franc, low inflation and big trade surplus, the reduction of deficits. So I believe it is timely and durable".

UK stock market planned for the Internet

By James Harding and Richard Wolfe in London

A shares market, which is intended to rival the London Stock Exchange, will be set up on the Internet computer network if plans by Electronic Share Information are accepted by the Securities and Investments Board, the chief City of London regulator.

The SIB said yesterday it had no objection in principle to an Internet exchange: "In the old days it used to be carrier pigeons, then the telex, then the telephone, then the computer. It is to each other." An Internet exchange would gain approval "provided it satisfied the statutory criteria, including investor protection".

ESI is the Cambridge-based technology company which won the right to publish online share information earlier this year, in the face of opposition from the London Stock Exchange.

Mr Hermann Hauser, founding director of ESI, says the company has already had preliminary discussions with the SIB and was given no reason not to proceed with its application to become a Recognised Investment Exchange. The application will be made early next year.

If the company wins RIE status, it will establish a third UK stock exchange to rival the London Stock Exchange and Trade Point, an order-driven electronic exchange that opened in September.

Eurotunnel's new train of thought for shareholders

By Andrew Jack in Paris

Eurotunnel, the Anglo-French operator of the cross-Channel rail link, takes an important step forward in its investor relations strategy today with the first meeting in Paris of a new committee of shareholders.

The gathering is the work of Mr Maurice Le Maire, whose appointment last month to the board of the group was a groundbreaking move in the development of corporate governance in France.

It makes Eurotunnel only the second large company in France to have an individual shareholder as a board member, and one of about a dozen which have created committees in a growing trend to build stronger links with their investors.

Mr Patrick Ponsolle, the French joint chairman of Eurotunnel, said he has tried to combine the best of English and French aspects of corporate governance, and that the appointment of Mr Le Maire reflects an area in which he believes France

is more advanced: communication with shareholders.

He cited in particular Air Liquide, the French chemicals group, which has run a shareholders' committee since 1986 and developed a good reputation for keeping its small investors in touch.

The aim of such committees - and related moves such as regional shareholder meetings, newsletters and phone enquiry services - is to help cultivate and sustain a loyal investor base.

"The problem is that in all countries institutional investors are well informed, but not individual shareholders," said Mr Ponsolle. "Shareholders' committees are not a substitute for the board, but they will help us improve the quality of information we provide."

For Eurotunnel, which has 721,000 shareholders - more than four-fifths are French - the demand for action was pressing in view of the tremendous decline in its share price, and accusations that the board was tilted towards the interests of

bankers, not investors. In response, the company has gone further than most of its competitors. As well as setting up French and UK shareholders' committees, Mr Le Maire has been appointed as an observer, or *censeur*, to the group's board, and his approval as a full director will be proposed at the next annual general meeting.

Until now, only Crédit Local de France, the banking group, has offered such a position, created in late 1993.

Mr Le Maire stressed that this broader role is how he sees his function on the board. "I am representative of the shareholders, but I am not there to represent shareholders," he stressed. "I will be a director like all the others."

Apart from two periods of military service during the 1980s, he spent his entire career with Total, the French petroleum company, becoming director of planning and budget before his retirement. But he was chosen because of his role as a shareholder - he and his wife hold 80,000 Eurotunnel shares between them.

Cubans prepare for revival of 'evil' taxes

Continued from Page 1

state shops anyway," said one self-employed artist who sells his paintings to tourists.

A general tax on national state salaries, almost all of which are paid in pesos, is not being considered for the moment because of public sensitivity over low salary levels and the reduced buying power of the peso compared with

hard currencies. But the possibility of a future tax on all income is contained in a framework Tax Law approved by Cuba's National Assembly in August 1994. Its implementation is being staggered to cope with expected public resistance to new taxes.

Both Cuban and foreign companies are already paying corporate and payroll taxes and other levies have been introduced, such

as an airport fee and taxes on documents and public advertisements. But the issue of personal taxes is by far the most sensitive.

"Our biggest problem is the lack of a tax culture," Mr Rafael Gonzalez, Cuba's deputy finance minister, said last week. "Our society finds it difficult to understand why it has to pay taxes. It sees them like some kind of fiction of the past."

Exchange weighs radical shake-up, Page 6
Media futures, Page 11
World stocks, Page 24

THE LEX COLUMN

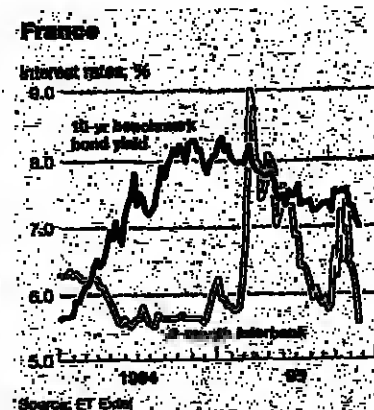
French fancies

The French government is right to tackle the country's budget deficit, but the combination of spending cuts and tax rises could push the economy into recession. Figures on economic growth in the third quarter, due out this week, are expected to show a virtually flat economy. There is every chance that the economy will shrink in the fourth quarter. The prospect of tax increases and the fear of unemployment have caused consumer spending to collapse. Industrial production is also falling as a result of the measures.

For bond investors, all this may be good news. Given the low level of inflation, the Bank of France would be justified in cutting rates drastically - particularly as the Germans are likely to ease monetary policy. The danger is that the French authorities will balk at taking the necessary action on rates because of their fears for the French franc. In fact, a weaker French franc would do more good than harm; but the political storm set by France's *franc fort* policy makes it hard to abandon.

There is still some downside for bonds. Without the stimulus of lower interest rates, a stagnant economy would not produce the level of growth assumed in the budget package. This could scupper the whole plan, which would mean that France would not meet Maastricht treaty criteria for the first wave of European monetary union.

Still, the rapidity of recent rate cuts bodes well. Fear of economic recession and social unrest may at last make the *franc fort* an unaffordable luxury.



Source: EY Data

company would have much claim in law.

There is an alternative option. The Gas Act requires British Gas to shift its trading business into a separate subsidiary, together with all its contracts. Unless the government forces it to, it does not have to provide the subsidiary with a guarantee. The subsidiary could then be demerged, in effect capping the liabilities shareholders would face and leaving a weaker business for producers to negotiate with.

The group's mysterious statement that it was looking at ways of optimising value for shareholders could be hinting at such an option. The problem is that the subsidiary would still have to be properly capitalised. Under the Act, it is up to the government to decide what this means. This may be why British Gas cares so much that ministers are on its side.

British Gas

If the government does not come to the rescue of British Gas, what options does the company have? To persuade producers to renegotiate its uncommercial gas contracts, it has to find some effective ammunition.

The company's armoury is not completely empty. One threat, hinted at in letters to producers last week, would be to declare the contracts unlawful, stop paying and confront the producers in court.

The prospect of long litigation could certainly give producers an incentive to renegotiate. But the threat would still look pretty weak. Reneging on the contracts would probably mean a further cut to the company's credit rating; it would also devastate the share price while litigation trundled on. Moreover, it is far from clear that the

Forte/Granada

Valuing hotels is almost as tricky as running them. But investors trying to decide on the merits of Granada's £3.2bn (\$5.21bn) offer for Forte will need to make a stab at it.

Despite the recent recovery in room rates and occupancy levels, hotels provide a poor return on assets. Forte achieved a mere 4 per cent return in its last financial year. Even factoring in a substantial uplift in profits over the next two years, analysts do not expect Forte's hotel division to return more than 10 per cent in 1997. That makes Granada's bid, at a 25 per cent premium to Forte's net assets, look more than generous.

It ignores, however, the high prices attracted by "trophy" hotels. The recent £75m sale of the Ritz equated to £576,000 a room. Valuing Forte's 17

luxury hotels on the same basis suggests a figure of over £2bn, although they account for less than 5 per cent of its total hotel rooms. But deals at such stratospheric levels are few and far between. That makes it hard for Forte to argue that luxury hotels deserve such elevated valuations. It also creates a problem for Granada if it is hoping for a quick sale of the luxury hotels to recoup some of its outlay.

Another approach is to value each part of Forte's portfolio on a multiple of forecast operating profits, ranging from 20 times for the trophy hotels to 10 times for Travelodge and 13 times for restaurants. After subtracting debt and tax this equates, very roughly, to 380p a share - 15 per cent above the current bid.

That is within Granada's reach. But if Forte can pull off a high-priced disposal as part of its defence, it could yet upset the mathematics.

United News & Media

The Express newspapers seem to be more popular with financiers than with readers. While circulation has been flagging, their owner United News & Media has found itself besieged by a stream of willing buyers this year. The latest is Mr Andrew Neil, the former Sunday Times editor. Assuming that his backers can raise the required £300m, a sale would bring advantages to United. Rising newspaper costs and a squeeze in the mid-market have hit the profitability of the Express titles. This year they are expected to make around £20m, down from £30m, before the exceptional costs of 200 redundancies.

At the mooted sale price, a disposal would give a modest boost to earnings per share. It would also eliminate United's borrowings, allowing faster expansion in magazines, exhibitions and media services. All these activities offer more rapid growth and better returns than national newspapers. The group has fallen behind rivals in these areas, partly because of fire-fighting at the Express.

Even so, a sale looks extremely unlikely. Chairman Lord Stevens has personal pride invested in the Express titles and last week's editorial appointments show him willing to back their revival.

With the newspaper price war abating he may be right to hang on. But shareholders should demand a clear explanation of how the Express fits in with the group's strategy.

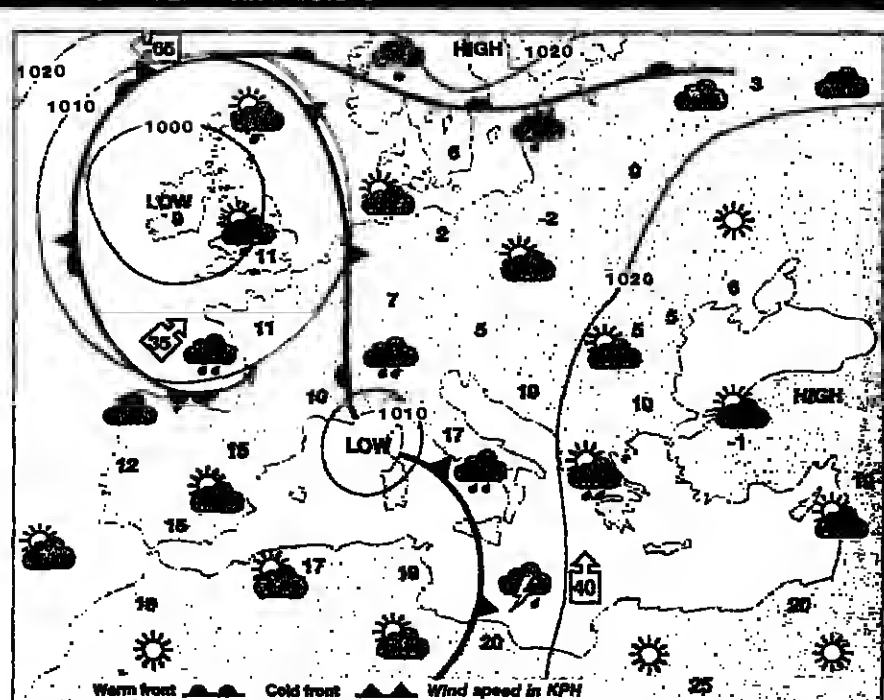
FT WEATHER GUIDE

Europe today

The Atlantic coast of Europe will continue to be mild. Rain will persist along the French Riviera. Showers will affect the British Isles and western France. Spain and Portugal will have showers in the north and west. Cloud will build in Holland and Belgium, with some rain and temperatures around 8C. Italy and the western Balkans will have showers. North-western Italy and the southern Alps will have heavy upstate rains and snow. Central Europe will remain cold and partially sunny. Persistent fog in southern Germany will dissipate during the day. The eastern Mediterranean will be calm and rather mild. Scandinavia will be frosty and sunny, except for some snow showers in the south.

Five-day forecast

Low pressure over central Europe will cause some rain in the Balkans and central Europe. It will slowly weaken. High pressure will build across southern Scandinavia, where wintry conditions will set in as cold air is pushed south-east into central Europe.



TODAY'S TEMPERATURES

Location	Temp	Location	Temp	Location	Temp
Abu Dhabi	sun 27	Belgrade	sun 10	Casablanca	sun 10
Algiers	sun 22	Bombay	sun 28	Cardiff	sun 10
Amsterdam	drizzle 15	Buenos Aires	sun 22	Casablanca	sun 10
Athens	cloudy 15	Calcutta	sun 34	Chicago	sun 10
Atlanta	sun 17	Cairo	sun 23	Cologne	drizzle 8
B. Aires	sun 17	Dubai	sun 27	Dakar	sun 30
B. ham	sun 17	Hong Kong	sun 27	Dallas	sun 19
Bangkok	sun 30	Isanbul	sun 11	Delhi	sun 23
Batavia	sun 14	Jakarta	sun 27	Doha	sun 27
		Kuala Lumpur	sun 27	Dublin	sun 8
		London	sun 15	Dubrovnik	sun 15
		Luxembourg	sun 15	Edinburgh	sun 8
		Lyon	sun 15		
		Madrid	sun 15		

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MARKETS THIS WEEK



MARTIN DICKSON:
GLOBAL INVESTOR
The question tantalising capital markets this week is whether the Bundesbank will cut the German discount rate at its council meeting on Thursday. And behind that question lies a larger one: whether the slowdown in European economic recovery is a mere technical pause, or something more ominous. Page 20



MARTIN WOLF:
ECONOMIC EYE
It is a truth universally acknowledged that a disconsolate electorate in possession of an unpopular government must be in want of tax cuts. Mr Kenneth Clarke, the chancellor, is expected to provide these on Tuesday. But his successor is quite likely to want to take the money back. Page 20

BONDS:
International investors tend to rank Swedish and Finnish government bonds among the riskier class of European assets - but the past few months provide grounds for a change of view. Page 22

EQUITIES:
Recent signals of what tomorrow's Budget will bring have pointed to tax cuts, balanced with public spending reductions; but a "give-away" could frighten institutional investors. Page 23

EMERGING MARKETS:
Brokers in Asia have learned the hard way that the records notched up by the Dow Jones index this year were keeping money in the US. Page 23

CURRENCIES:
Some recent surveys have found that companies, investors and interbank participants are slightly underweight in sterling. This would suggest that UK assets and sterling may well attract investor support if the Budget is well received. Page 23

COMMODITIES:
Delegates to the Association of Coffee Producing Countries' meeting in Bali today and tomorrow face a daunting task. Page 20

INTERNATIONAL COMPANIES:
Skanska, Sweden's biggest construction group, is confident of a double coup today when contracts worth about \$1bn are announced for two bridges on the first fixed road and rail link between Sweden and Denmark. Page 19

UK COMPANIES:
Mr Hugh Astor, chairman of the Council of Forth, which safeguards Forth trust shares and has the power to block the £3.3bn (£2.2bn) hostile bid launched last week by Granada, the TV and leisure group, said that in a dispute between the Forth board and its shareholders, the council "would probably stand on the sidelines". Page 18

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Kvaerner primes hostile \$592m bid for Amec

By Andrew Taylor in London and Hugh Carnegie in Stockholm

Kvaerner, the Norwegian shipping and engineering group, is today expected to launch a \$592m (£362m) hostile takeover bid for Amec, the UK construction group which last week launched a bid for Alfred McAlpine, its British competitor. It believes that Amec's rushed-out offer for McAlpine has left it with little option but to pursue a full-scale bid immediately. However, it would prefer not to have to fight a hostile takeover battle - something Scandinavian companies tend to avoid.

Mr Erik Tønseth, Kvaerner chief executive, may first seek another meeting with Sir Alan Cockshaw, the chairman of Amec, to press his case that the two companies have much to offer each other.

Kvaerner said yesterday it was considering its options. However, a full-scale bid seems to be the most likely outcome and this is expected to be launched today. First indications of Kvaerner's likely bid emerged last Thursday when the company launched a dawn raid on Amec which increased its stake from 2 per cent to 12 per cent.

Within hours, Amec had launched an all-share offer for McAlpine which valued it at £133m. The Norwegian group has pledged to pay no more than the 100p a share which it offered during Thursday's dawn raid and which valued Amec's ordinary shares at £203m. An offer for Amec's preference shares, yielding about 9 per cent, is likely to be in the form of a similar yielding instrument worth about £172m.

Mr Erik Tønseth, Kvaerner's chief executive, said on Friday he had been surprised, puzzled and embarrassed by Amec's move. He said the share offer for McAlpine implied a value of Amec of 60p-70p compared with the 100p a share paid by Kvaerner. Amec is offering two of its shares for each McAlpine share.

McAlpine, which had been involved in tentative discussions about a possible merger with Amec, was taken aback by the move. It said it would not respond until the outcome of discussions between Kvaerner and Amec were known. Amec's defence against an offer from Kvaerner will be that 100p a share does not reflect the true value of the expected recovery in Amec's profits following the completion of problem contracts and the winning of new profitable work in Asia.

Sir Alan Cockshaw was in Tokyo at the weekend as part of the company's drive to win more work in the region. Amec also said a merger with McAlpine would represent further rationalisation of the hard-pressed UK construction sector following the recent asset swap between Wimpey and Tarmac.

Kvaerner sees Amec's offshore operations as an opportunity to help its oil and gas installation business to achieve its aim of expanding internationally beyond its present base in the Norwegian North Sea sector, establishing a divisional headquarters in London.

Amec's offshore operations include heavy involvement in the British sector of the North Sea. Names in the news, Page 7

Group feels pressure in chemicals and building materials arms Hanson poised to hold pay-out after downturn

By David Wighton in London

Hanson, the Anglo-US conglomerate, is expected to hold its dividend when it announces annual profits on Thursday.

It is thought that the group, which is chaired by Lord Hanson, will not increase the payment to shareholders because of a recent downturn in trading at its Quantum Chemicals subsidiary and its building materials companies.

Mr Derek Bonham, Hanson's chief executive, had signalled that the board would consider the level of its quarterly dividend at the year end. Some analysts have been predicting an increase in the rate, which has been held for six quarters. But most believe that an increase would do little to revive Hanson's share price, which has badly underperformed this year. On an unchanged dividend, the shares already yield 7.9 per cent.

Hanson's short-term prospects have been hit by a recent downturn in the price of Quantum's main products, ethylene and polyethylene. Although the industry believes that this is a temporary adjustment some analysts, particularly those on Wall Street, argue that the cycle has peaked.

In the UK, Hanson's building materials companies have been affected by the marked slowdown in activity since the summer. Brick demand has fallen and ARC, its large aggregates business, is threatened by the government squeeze on the roads programme. Meanwhile, in the US, where Hanson is a large mine owner, coal prices have continued to slide.

Eastern Group the regional electricity company (rec) acquired by Hanson in September for £2.5bn (£3.9bn) suffered a potential blow last week when bids by National Power and PowerGen, the UK's two largest power generation companies, for two other recs were referred to the Monopolies and Mergers Commission. The MMC will examine whether combining large generators with big electricity suppliers would be against the public interest.

Eastern has been hoping to pursue such a strategy. Two weeks ago it signed a deal subject to clearance, to lease two power stations from PowerGen and is among the final bidders in an auction for three National Power plants. National Power said last week it was concerned whether the proposed sale could be completed as anticipated.

The Eastern acquisition will have taken Hanson's gearing to more than 100 per cent but the company will repeat its commitment to bring down debt, partly by disposals. Among the candidates for sale are Suburban Propane, the US gas distributor acquired with Quantum, and Cavendish Forest Industries. Annual profits are expected to show strong underlying growth although, after exceptional items, the figure is likely to show little change from the previous year's £1.35bn.



Lord Hanson: turning his back on a dividend increase

Spanish hotel chain considers flotation

By Antonio Sharpe in London

Grupo Sol Meliá, Spain's biggest hotel company and the third-largest hotel chain in Europe, is considering a stock market flotation to finance development.

The company, owned by its founder Mr Gabriel Escarrer, a Majorcan hotelier in his mid-50s, has asked eight international investment banks for views on how to prepare for a flotation. Goldman Sachs, Morgan Stanley, SBC Warburg and UBS are believed to be among the banks pitching for the mandate.

Grupo Sol confirmed it was considering going public but said the plans were at an early stage. It said a final decision would not be taken before February. Group turnover in 1994 was \$1.1bn (£696m) and is expected to rise slightly to \$1.2bn in 1995.

Bankers still have to put a valuation on Grupo Sol, and it is not clear how much of the equity will be put up for sale. However, they estimate the size of the offering will run into "hundreds of millions of dollars".

Founded in 1958, Grupo Sol's origins lie in the high-rise hotels of the Balearic and Canary Islands, which cater for the package holiday market. Although about 65 per cent of its 182 hotels are in Spain, over the past decade the company has broadened its geographical spread and now manages hotels in 22 countries, ranging from Cuba to Vietnam.

Grupo Sol has sought to reduce its dependence on tourism in favour of business travel. It is also seeking to strengthen its position at the upper end of the hotel market. If Grupo Sol does go public, it will be the first hotel company to be listed on the Madrid stock exchange. Details, Page 23

Fund managers lift investment in European bonds

By Richard Lapper in London

International bond fund managers have stepped up their investments in European bonds over the last month - amid increasing signs of European economic slowdown and growing expectations of interest rate cuts.

More than 90 per cent of international fund managers interviewed in a survey published today consider themselves either neutral or overweight in the amount of funds they allocate to "core" European markets such as Germany, Austria and the Netherlands, compared with 75 per cent in equivalent research conducted a month ago.

The survey indicates investors are buying more bonds which have a longer maturity, typically popular at times of declining inflationary expectations.

The survey, by Lehman Brothers, the US investment bank, shows that 47 fund managers interviewed are reducing the amounts they keep in cash.

Mr Mark Fox, chief European strategist at Lehman Brothers, said the survey, published monthly, showed investors "clearly expect interest rates to come down quickly all across Europe. There is not much room for investors to be more positive about European bonds than they are now".

Finland, Denmark, France and Belgium have all seen important short-term rates trimmed in the last fortnight, following a succession of data showing economic slowdown in a number of countries. There are expectations that the Bundesbank will reduce Germany's discount rate from its current level of 3.5 per cent to 3 per cent within the next four months and possibly before the end of this year.

The survey shows Denmark is the most popular market after Germany, Netherlands and Austria. In Europe, Italy was the main exception with the number of respondents either neutral or overweight falling from 66 per cent to 59 per cent.

A majority of the investors surveyed are still underweight in Japan, although those funds either neutral or overweight in Japan last month increased from 20 per cent to 28 per cent. The numbers neutral or overweight in the US market fell from 75 per cent to 69 per cent, although most respondents are still either neutral or bullish about the prospects for the dollar.

Mr Fox says the fixed income investors surveyed manage funds of about \$15bn, or more than 10 per cent of international capital invested in government bond markets according to Lehman Brothers.

Bond markets have performed well this month with yields of both long and short-dated paper falling. The yields on German, UK, French and Italian 10-year bonds have all fallen by between a quarter and about half a percentage point in the last four weeks, outperforming both the US and Japanese markets.

"The economic numbers are coming in weaker and weaker every day," says Mr Stuart Thomson, chief international economist at Nikko Europe. "It is only a matter of time before growth forecasts are reduced." Scandinavian bonds, Page 22

This week: Company news

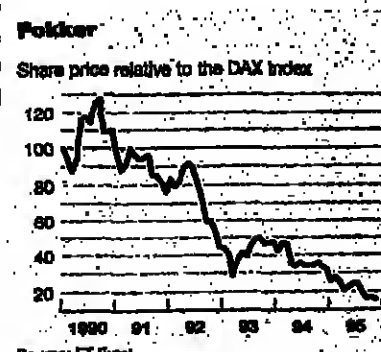
FOKKER Shareholders to hear case for capital injection

The beleaguered Dutch aircraft maker will on Wednesday convene an extraordinary shareholders' meeting to explain why it needs a capital injection from the Dutch government and Daimler-Benz Aerospace (Dasa), its controlling shareholder.

Talks between the Dutch and the Germans have just started, making it unlikely that the company will be able to use the shareholders' meeting to report a final deal. Fokker is seeking more than £1.2bn (£1.5bn) in fresh capital, but the Dutch government and Dasa are reluctant to commit themselves until the other has agreed to make a large contribution to the operation. Dasa bought its Fokker stake in 1993, with the Netherlands retaining a minority holding.

In an unusual departure in the Netherlands, the Dutch team is being led not by a civil servant but by Mr Floris Maljers, the former executive board chairman of Unilever, the Anglo-Dutch consumer products group. He reports to Mr Hans Wijers, the Dutch minister of economic affairs, who regards Dasa as bearing the main responsibility for safeguarding Fokker's future.

Shareholders will be asked to approve the appointment of Mr Robert van Oord, executive board chairman of KNP BT, the paper and packaging group, as chairman of Fokker's supervisory board. Daimler-Benz will be seeking approval for the appointment to the Fokker supervisory board of two members to replace the two Daimler representatives who have left the German industrial group. Fokker's problems took off in August when it reported record first-half losses of £1.65m. The losses, caused mainly by the weakness of the dollar, virtually wiped out Fokker's shareholders' equity. It has been able to continue to operate because of guarantees provided by Dasa.



GRAND METROPOLITAN Drinks arm takes fizz out of result

Higher food profits but lower drinks profits will mark Grand Metropolitan's results on Thursday, when it is expected to report pre-tax profits before exceptional items of about £910m (£1.4bn), down £35m from a year earlier. Most of the shortfall in its IDV drinks arm will come from the loss of the Absolut vodka and Grand Marnier distribution rights. Underlying volumes at IDV were static and price increases were hard to achieve, a dilemma common to most drinks producers confronted by cautious consumers.

However, compensation for stagnant markets in Europe and North America comes from emerging markets, where IDV's volumes are growing at about 5 per cent a year. Cost savings are flowing from restructuring programmes launched in each of the past two years. But the group has declared that money saved will be spent on sharply higher advertising and marketing of its food and drink brands around the world. North American food will again be the bright spot, with operating profits rising to about £310m from £221m. European foods will continue their modest recovery with profits of about £28m, up £2m.

Exceptionals in these results should net out at a gain of about £12m. A final dividend of 9.4p (8.8p) and earnings of 28.6p per share (32.2p) are forecast.

OTHER COMPANIES New UBS chief steps into the limelight

Mr Mathis Gabiellavetta will make his first appearance before the press tomorrow since being named to succeed Mr Robert Studer as chief executive of Union Bank of Switzerland. At the traditional autumn press conference in Zurich, Mr Gabiellavetta and other executives of Switzerland's largest bank will probably give a little more detail on the progress of business.

The bank said on November 1 that revenues showed "a positive development" in the third quarter and net income after nine months was "slightly up" on the same period of last year. It expected "good" full-year results in spite of the impact of the stagnating Swiss economy on provisioning requirements.

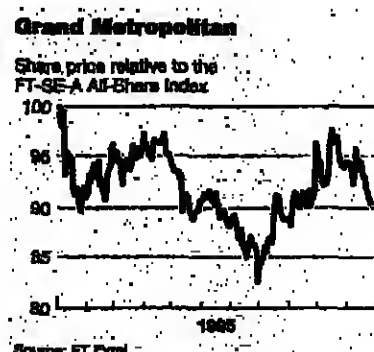
This was somewhat brighter language than that accompanying the interim report in August, when net income was down 10.4 per cent to SFr832m (£756m) and uncertainty prevailed.

■ Nintendo: The Japanese video games maker is expected to show higher recurring profits when it reports first-half results today.

However, the gains at the recurring profits level are expected to be the result of support from a favourable foreign exchange environment. The difficulty the company faced in business terms will be better reflected in operating profits, which are expected

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to fall. During the period, Nintendo was faced with falling prices of its Super Famicom games machine, a lack of popular software and intense competition from rivals such as Sega and Sony.

■ Nedlloyd: The Dutch shipping and road-haulage group will be issuing a revised profit forecast for 1995 on Wednesday when it releases third-quarter results.

In October, the company retracted earlier predictions of stable results before extraordinary items and forecast a substantial decline, promising to give further details on November 28.

Analysts believe the third-quarter results before extraordinary items will also be lower, down from F1.48m (£39m) a year earlier to about F1.30m. Last month's profit warning has weighed on Nedlloyd's share price and hurt other cyclical stocks on the Amsterdam stock exchange.

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The Dai-ichi Kangyo Bank, Limited

A/S Jyske Bank

Chemical Bank Norge AS

Den Danske Bank

Enskilda

Morgan Guaranty Trust Company of New York

Royal Bank of Canada

Société Générale

Union Bank of Switzerland

Banque Nationale de Paris

Handelsbanken

Schweizerische Eidgenossenschaft

Girocentrale

London Branch

SBC Warburg
A DIVISION OF SWISS BANK CORPORATION

COMPANIES AND FINANCE

Council of Forte set to stand on sidelines

By Scheherazade Daneshkhu and Raymond Snoddy

Mr Hugh Astor, chairman of the Council of Forte, which safeguards Forte trust shares, would not interfere in a dispute between the Forte board and investors over the Granada bid.

The council has the power to block the £3.5m hostile bid launched last week and Mr Astor said that in any dispute "we would probably stand on the sidelines and let them decide between themselves".

Forte, the UK's largest hotels company, has urged its shareholders to reject the bid from Granada, the TV and leisure company. The council holds less than 1 per cent of Forte's share capital but more than

half of voting rights. Mr Astor said the council has already had what he described as "a courtesy meeting" and council members are due to meet this week. They will then meet the Forte board and Granada. Mr Gerry Robinson, chief executive of Granada, said yesterday that he would present Granada's record as "business builders" to the council and reject any talk of asset stripping.

Meanwhile, Sir Rocco Forte, chairman and chief executive, said yesterday he would be making changes to Forte's main board of directors but would not be rushed. Mr George Proctor, retired as group commercial director this year and has become a non-ex-

ecutive. Mr Tito Chianetti, 60, director of catering services, is expected to be the next to relinquish his position. Sir Charles Hardie, 85, a non-executive appointed 25 years ago will also retire soon.

Forte is also expected to announce in coming weeks the sale of the White Hart chain of hotels which has been for sale for some time. On Friday the group said the sale of £300m of assets was underway. These include White Hart, the budget Travelodge chain in the US and Lillywhites, the London sports store.

However, Mr Robinson was sceptical yesterday about the motivation behind the sale of White Hart and board room changes. "There is going to be an element of bouncing around



Sir Rocco: would not be rushed by Granada into board changes

there now in terms of coming out with things that will solve the problems," he said.

In response to Granada's claim that it could improve profitability at Forte, particularly in the Travelodge hotels, Mr Tony Monckland, group director for restaurants at Forte, said yesterday: "We

bought three lodges from Granada in 1994. In the first year under our management, sales rose by almost 10 per cent by simplifying the pricing structure and improved brand management. Efficiency improvements almost doubled margins, resulting in a profit increase of almost 80 per cent."

Study says C5 revenues will hit Carlton and Granada

By Raymond Snoddy

The new Channel 5 will take revenues of £88m in its first year on air and the competition it provokes will hit the television revenues of Carlton Communications and Granada, hardest of all the other ITV companies.

The predictions come in a study on the impact of C5 - due to begin broadcasting on January 1 1997 - to be published by stockbroker Goldman Sachs later this week. Mr Neil Blackley believes C5 will reduce overall ITV growth in 1997 and in subsequent years. C5, which will be available to three quarters of the UK population, will in 1997 wipe £18.1m off the profits of Carlton and £11.9m off Granada.

By contrast, M&T, owner of Meridian Broadcasting, will have a £1.5m boost, and Pearson, owner of the Financial Times, will gain an extra £5m from the channel in that year. Both are investors in Channel 5 Broadcasting, the consortium awarded the licence by the Independent Television Commission.

ITC decision is being challenged in a judicial review by Virgin Television. Goldman believes C5 is likely to be a commercial success and that by 2002 it will command 4.5 per cent of total television viewing, or 7.3 per cent of commercial viewing.

C5, Goldman estimates, will break into profit in 2000, and make a pre-tax profit of £36m by 2002. "Assuming an initial equity investment of £100m, the mid-point valuation comes out at £158m," the stockbroker says.

Channel 5: Its Economic Viability and Differential Impact on ITV Companies. £55 from Sarah Peters on 0171 774 5810

Neil group to persevere with bid for Express

By Raymond Snoddy

Mr Andrew Neil, former editor of the Sunday Times, said yesterday he would persevere with a plan to buy Express Newspapers even though Lord Stevens, chairman of United News & Media, has insisted the papers are not for sale.

Mr Neil, Mr John Dux, former managing director of Mr Rupert Murdoch's News International, and a third unnamed marketing specialist, have raised up to £200m in principle from Morgan Grenfell Development Capital to try to buy the titles.

Arthur Andersen, the consultant, was also involved in drawing up the business plan to run the papers - the Daily Express, Sunday Express and Daily Star. The plan, involving a bid of £200m-£250m, with the rest of the money as working capital, ran up against the outright opposition of Lord Stevens.

The United chairman has made it clear he will only sell the papers if presented with an offer so large that he has no legal alternative.

As part of his plan to revive the Daily and Sunday Express, Lord Stevens last week appointed two new editors for the titles. Mr Richard Adis of the Daily Mail is to become editor of the Daily Express and Ms Susan Douglas moves from

the Sunday Times to edit the Sunday Express.

Because of Lord Stevens' opposition to a sale, no formal offer was submitted for Express Newspapers. The plan now is to approach other senior United figures to see whether they agree with Lord Stevens or whether a majority could be found on the board in favour of a sale.

"This will flush things out one way or another," Mr Neil said yesterday. He confessed however that the idea was currently in a state of limbo because of Lord Stevens' opposition. "We have the money. We have the business plan. We have the people," insisted Mr Neil.

If the Neil consortium fails to buy the Express Group - it seems unlikely it would succeed at the sort of price being mentioned - it may move on to another newspaper industry target.

A previous television project put together by Mr Neil and another group of former Murdoch executives - to create a new "black box" for subscription television - has been "pigeon-holed" for the time being. The aim was to enable ITV companies and other traditional broadcasters to offer pay-television services in competition to those of Mr Murdoch.

PolyMASC goes for Aim listing

By Motoko Rich

PolyMASC Pharmaceuticals, the London-based biotechnology company, is to seek a listing on Aim next month.

The group, being spun out of a scientific research team at the Royal Free Hospital Medical School, Molecular Cell Pathology Unit, plans to raise about £5m by a public offer of 25 per cent of the shares.

The float will be sponsored by Teather & Greenwood, which is also acting as broker.

PolyMASC is unusual in that it is going direct from an academic institution to the market without seeking venture capital investment. The only external investor in the group is the Royal Free Hospital Medical School, which will have a 26 per cent stake after the listing.

The group is focusing on treatments and diagnostics for cancer, blood diseases and genetic enzyme deficiencies.

Welsh may offer Swalec £840m

By Peggy Hollinger

Welsh Water is to present Swalec, the regional electricity company, with bid terms likely to value it between £800m and £840m.

The bid will be presented on Wednesday and the offer will exclude the value of Swalec's holding in the National Grid.

Grid shares began trading on the grey market last week in advance of the official listing in December. They closed at 216½p

on Friday, down 7½p. Welsh Water's advisers estimate the Grid value at about 25p per share, including the benefits to tax free funds.

Welsh is determined to reach agreement on a bid with Swalec if possible. The electricity company, however, is thought to be strongly resistant to the idea of a takeover. Should the talks on Wednesday fail, Welsh is expected to launch a hostile bid.

The market has speculated that Welsh Water would have to offer £11 per share to

get Swalec. However, it may have to go as high as £11.50 - or £3 a share excluding the Grid.

It is believed that an offer of £12 would be considered dangerously high by Welsh Water's investors, who have voiced strong concerns about the company's plans to buy Swalec. The group needs a strong backing of its shareholders, particularly as it plans to raise about 20 to 25 per cent of the offer price through a rights issue. The balance will be funded by debt.

£300m Nutricia roadshow moves in

By David Blackwell

The roadshow to sell Unigate's 29 per cent stake in Nutricia - one of the biggest European corporate deals of the year - moves into top gear this week.

Presentations to potential investors move from continental Europe to the UK tomorrow as the deal moves into the final stages. Early indications are that interest is strong, with orders already in from Dutch, UK, Scandinavian, Swiss, and German investors.

Nutricia became Europe's largest baby food maker after buying Germany's Milupa in August. Unigate, the UK foods and distribution group, is hoping to get more than £300m for its stake.

More than 6.2m depositary receipts, or shares, in the Netherlands-based group are being sold via a global book-building exercise through SBC Warburg and ABN Amro Hoare Govett.

Ms Lucinda Riches, executive director of equity capital

markets at SBC Warburg, said that early indications were favourable. "They reflect the scarcity of primary issues in this sector and the strength of the investment case following the Milupa acquisition."

Nutricia shares shed £13.30 to close at £11.14 on November 15, when Unigate announced its decision to sell. At the close last Friday the shares were £11.21.

Unigate shareholders will vote on the sale at an extraordinary general meeting this Friday. The shares will be priced the following week. The recovery in the share price indicates that there is little selling pressure. The book-building exercise will aim to price the shares as close as possible to the market price.

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COMPANIES AND FINANCE

NEWS DIGEST

Singapore Telecom lifts interim profits

Singapore Telecom, the island republic's largest company, has reported pre-tax profit for the six months ended September 30 of S\$885m (US\$697m), a 9.4 per cent rise on the previous comparable period. Group turnover was up 12 per cent to S\$1.96bn. ST, ranked among the top 50 of the world's conglomerates in terms of market capitalisation, said three rounds of tariff cuts over the past 14 months had adversely affected International Direct Dialling (IDD) revenues. While IDD traffic increased by 26 per cent over the six-month period, revenues from mobile phone and paging services were strong, with revenues from mobile communications increasing by more than 16 per cent. Over the past year, ST's mobile phone customer base has grown by 30 per cent, with the number of paging customers up 22 per cent. Singapore now has a mobile phone penetration of 9 per cent and 30 per cent of the population have pagers. Singapore has more pagers per head of population than anywhere else in the world.

ST reported continuing losses in its associated companies, rising to S\$31m in the last six months compared with S\$11m in the previous equivalent period. The group said the bulk of the losses were from an investment in NetCom GSM of Norway and an interest in Yorkshire Cable and Cambridge Cable in the UK - the single largest overseas investment.

Kieran Cooke, Kuala Lumpur

France Télécom earns FF5.3bn

France Télécom, the French state-owned operator, achieved a net profit of FF5.3bn (\$1.09bn) in the first six months of this year on turnover of FF78.5bn. The results were the first half-year figures from the national telecoms company and compare with group net profits for 1994 of FF9.9bn. They come as the company is preparing itself for the liberalisation of European telecoms services from 1998 and as it steps up efforts to curb its debts.

After a dividend payment to the state estimated at between FF4bn and FF5bn, debts are expected to fall by more than FF12bn this year, from a total of FF95bn at the end of 1994. Under the terms of a planning contract with the government which covers the 1995-98 period, debts are scheduled to fall to FF45bn. A reduction of the company's debt burden is seen as necessary to increase France Télécom's competitiveness ahead of telecoms deregulation. It is also seen as a possible step towards the eventual sale of a stake in the company.

So far, the French government has said that it plans to reform the operator's statutes, changing it from an arm of the administration to a public sector company with its own share capital. It has remained guarded, however, about the possibility of a partial privatisation, a move which would be fiercely opposed by trade unions.

John Riddling, Paris

Hungary to decide on Matav

Hungary is due to decide this week on the sale of its remaining 65 per cent stake in Matav, the partially privatised telecommunications company. APV Rt, the state privatisation agency, has been in discussions since the summer with Magyarom, the consortium of Ameritech and Deutsche Telekom that bought 30.3 per cent of Matav for \$875m two years ago. The consortium, which already has management control of the company, has said it wants a majority stake.

It is believed that the consortium will purchase most of the APV Rt's remaining stake in the company, but will undertake to float the company and reduce its shareholding within a fixed period of time. The consortium blocked an IPO planned for last year, as an offering at a lower price per share than it had paid would have forced Ameritech and Deutsche Telekom to write down their investment in Matav at a loss.

Virginia Marsh, Budapest

Restructuring helps Kyocera

Increased sales and restructuring helped Kyocera, the Japanese maker of ceramic products and electronic equipment, more than treble consolidated interim pre-tax profits in the face of a strong yen. Group sales in the first six months rose 39 per cent to ¥314.1bn (\$3.14bn) from ¥228.9bn while pre-tax profits surged to ¥102.6bn from ¥33.1bn.

A significant part of the improvement was due to a contribution of ¥38.3bn from the listing of AVX, its US subsidiary, on the New York Stock Exchange. Without the contribution, Kyocera's profits jumped 94 per cent to ¥64bn. Net profits more than doubled to ¥51.2bn from a previous ¥16.8bn.

Kyocera expects the continuing strength of PCs and telecommunications equipment to support increased sales in the year to March. It forecast that non-consolidated sales would rise 37 per cent in the full year to ¥486bn, that recurring profits would increase by 76 per cent to ¥96.5bn, and that net profits would more than double to ¥35bn.

Michio Nakamoto, Tokyo

David Jones prices issue

David Jones, the Australian department stores group, has set the issue price of its shares at A\$2.00, towards the bottom end of the A\$1.95-A\$2.15 bidding range at which it asked institutional investors to apply for stock. The A\$2.00 a share price means that private investors, who were asked to subscribe at A\$2.15, will get a refund.

At the offer price, the 375m shares on offer - which are being sold by David Jones' parent company, part of the troubled Adelaide Steamship group - are valued at A\$750m (US\$553.5m).

Nicki Tsai, Sydney

Skanska group expected to win bridge contracts

By Hugh Carnegie
in Stockholm

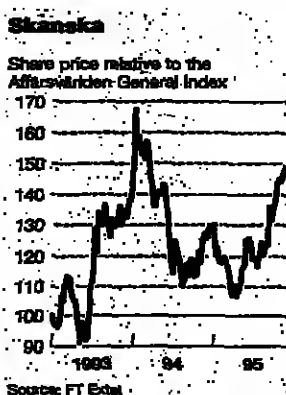
Skanska, Sweden's biggest construction group, is confident of pulling off a double coup today when contracts worth about \$1bn are announced for the two bridges which make up the main section of the first fixed road and rail link between Sweden and Denmark.

Consortia led by Skanska are expected to win the contracts for the 6km-long low bridges and the 1km cable-stayed high bridge which will span the shipping lanes in the Öresund channel between the two countries. The Danish companies Holgaard & Schmitz and Mønsterg & Thorsen are partners in both consortia, with Germany's Hochtief also involved in the high bridge consortium.

The contract awards, to be signed today in Malmö on the Swedish side of the Öresund, will come as a welcome boost for Skanska after three years of recession in the Swedish construction industry.

On Friday, Skanska announced a fall in profits after financial items in the first nine months of 1995 from SKr2.7bn last time to SKr2.15bn (\$30m), on sales up significantly from SKr2.7bn to SKr28.9bn. But the profit figures were distorted by heavy one-off dividends accrued at the same stage last year: operating profits rose from SKr2.6bn to SKr3.2bn.

Skanska expects full-year profits to be in line with last year's SKr3.1bn. Since the Swedish market collapsed in 1992, when Skanska slid into heavy losses, it has relied on its overseas operations to stay profitable. It said the number of housing starts in Sweden in 1995 was likely to be the lowest this century.



Source: FT Data

The Öresund bridge-tunnel project, due for completion in 2000, is set to be a boon for Swedish companies. The \$680m contract for the 3.7km tunnel linking the Danish side to the bridges was won in July by a consortium led by NCC, Skanska's main Swedish rival.

A total of 11 consortia bid for the two bridge contracts, including companies from Sweden, Denmark, Germany, Spain, Turkey, the US, France and the Netherlands.

The Skanska-led groups were believed to have been the lowest bidders in both cases. The Öresund consortium, the Danish-Swedish group managing the project, said the lowest bid for the low bridges was DKr3.8bn (\$63m) and for the high bridge was DKr1.5bn.

The Öresund link to Zealand and Copenhagen will enable road and rail traffic to run directly between Sweden and Denmark for the first time. Coupled with the nearly completed DKr20bn Storebælt bridge tunnel project linking Zealand and Funen islands to the Danish mainland, the link will greatly speed connections between Sweden, the heavily populated Copenhagen area and the rest of Europe.

Syndicated loan for Anglovaal

By Conner Middelmann

Anglovaal, the industrial and mining group, is seeking to raise \$100m in the international syndicated loans in the first general-purpose credit facility for a South African corporate borrower since 1995, when international sanctions ring-fenced South Africa from global financial markets.

The transaction marks a further step towards South Africa's rehabilitation in the international capital markets following the gradual removal of anti-apartheid sanctions.

"This deal marks the full reopening of the international loan markets to South African borrowers," said one banker, who expects the deal to pave the way for similar transactions by other South African companies.

The three-year revolving credit facility is being arranged by Henry Ansbacher, the UK merchant banking subsidiary of First National Bank of Southern Africa.

ABN-Amro Bank, Commerzbank, Fuji Bank and Royal Bank of Scotland are acting as co-arrangers.

Anglovaal will pay an interest rate of 67.5 basis points over the London inter-bank offered rate (Libor) on the loan. The close of syndication will be December 8.

Anglovaal plans to use the funds within its domestic central treasury and, subject to exchange control, for the financing of offshore acquisitions. The company is listed on the Johannesburg and London Stock Exchanges and has a market capitalisation of R10.5bn (\$2.87bn).

In recent years, bank lending to South Africa has been limited to a small number of trade-finance related loans insured by borrowers' hard-currency earnings or offshore assets. However, since the beginning of the year, the syndicated loans market has seen a steady stream of South African business totalling some \$1.5bn in deals with increasing maturities.

It was kicked off in January by First National Bank and followed by loans to eight banks and four parastatal agencies, although a \$100m loan for power utility Eskom in March was said to have struggled due to its ambitious five-year maturity.

Austrian banks approve bid for HTM

By Ian Rodger in Zurich

Head/Tyrolia/Mares (HTM), the insolvent Austrian sports equipment group, has escaped bankruptcy proceedings after Austrian banks approved a controversial takeover plan by a consortium led by Swedish financier Johan Eliasch.

The terms, which include a Sch.19bn (\$119m) cash contribution to HTM from state-owned tobacco monopoly Austria Tabakwerke, the former owner, and Sch.90m in debt forgiveness and interest waivers from the banks, still have to be approved by the European Commission.

Other sports equipment groups have protested to Brussels that the deal has an element of state subsidy and should be blocked. A full investigation taking two to four months is expected.

HTM, known internationally for its ski, tennis and diving equipment, has proved a headache since Austria Tabak bought it in 1998 for \$240m. In spite of large capital injections from Austria Tabak, it remained in loss, and was declared insolvent last August when one of its Austrian banks called in a loan.

Austria Tabak proposed a rationalisation plan, but the

Austrian finance ministry rejected it and sacked three top executives. In September, Mr Eliasch's proposal to buy the company for a token Sch.10m, provided it would get the agreed advances from Austria Tabak and debt and interest relief from Austrian banks, was accepted.

HTM has sales of about Sch.1.9bn and debts of Sch.2.5bn. Mr Michael Treichl of investment bank SBC Warburg, adviser to the Eliasch consortium, said Austria Tabak's contributions were not state aid, but the only way the group could get rid of HTM as a going concern.

"We are taking on the liabilities with no warranties or representations," Mr Treichl said. As part of the deal with the banks last week, the Eliasch consortium agreed to raise its equity investment to Sch.85m.

Mr Treichl said HTM would now approach bankers to HTM's non-Austrian subsidiaries to seek their support. No difficulty was expected as these operations were not in trouble. HTM would continue trading in the next few months by drawing down Sch.250m from Austria Tabak as EU-recognised "rescue aid" pending the outcome of the commission's investigation.

Fuji Film ahead despite sluggish sales

By Michio Nakamoto in Tokyo

Fuji Film, the Japanese maker of photographic products, reported firm consolidated pre-tax profits for the six months to September 30, despite sluggish sales.

The company suffered slow domestic sales and a time-consuming public relations battle with Kodak of the US, which claims Fuji has unfairly excluded it from the Japanese market.

Fuji is at the centre of an investigation by the US trade authorities into the Japanese market for colour film and photographic paper. There is the possibility of trade sanctions if it is decided the market is unfair.

Pre-tax profits in the first half were ¥85.8bn (\$649m). The figures are not directly comparable with last year as Fuji changed its year end from October to March this year. In the five months to March 31, it

made pre-tax profits of ¥49.5bn. Sales during the period were ¥519.4bn. The company was adversely affected by the strong yen. Net profits were ¥37.8bn.

Overseas, Fuji enjoyed stronger demand in south-east Asia, Europe and the US for its colour film, although gains were undermined by the rise of the yen.

On a local currency basis, sales in south-east Asia grew

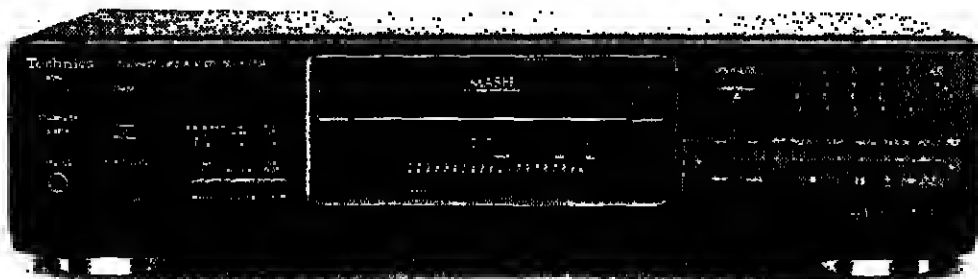
20 per cent, supported by buoyant demand in Malaysia and China and new demand in Vietnam. Sales registered near double-digit growth in Europe. In the US, Fuji managed to post some growth on a dollar basis, although not as much as in the other regions.

At home, Fuji Film has struggled in a sluggish market to maintain its high share in the face of intense price competition and the penetration of imports.

TECHNICS. THE BEAUTY LIES BETWEEN THE NOTES.

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*Technics developed the world's first MASH type DAC. MASH technology was invented by NTT (Bj. Ltd.) MASH is a trademark of NTT.

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The question
tantalising capital
markets this week
is whether the
Bundesbank will
spring a surprise
and cut the German
discount rate at its
meeting this Thursday.

And behind that question
lies a larger one: whether
the slow-down in European
economic recovery is a mere
technical pause, stemming
from the stock cycle, or is
developing into something
more ominous.

The official view is still fairly
sanguine. The European
Commission forecast last week
that the EU would grow 2.6 per
cent next year, compared with
2.7 per cent in 1995. But some
private sector economists
suggest this may be overly
optimistic.

Some question whether the
consensus forecast adequately
reflects the braking effect of
tightening fiscal policy as
Europe countries try to meet
the Maastricht criteria for
monetary union (though any
slowdown should be offset by
the lower borrowing costs that
are the corollary of fiscal
rectitude).

Nowhere are these tensions
more evident than in France,
where the Juppe government
has made deficit reduction its
top priority and unveiled a

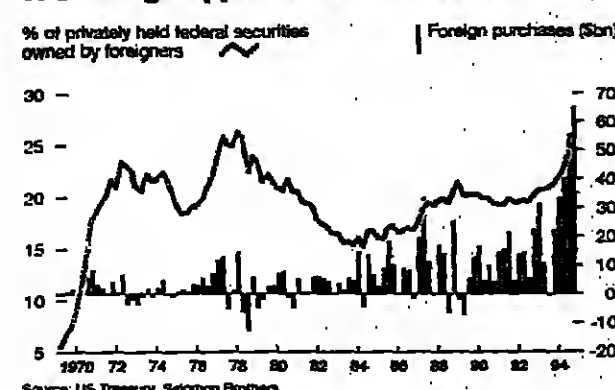
tough package of welfare
reforms, tax increases and
spending cuts.
That is likely to exacerbate
an already poor economic
outlook. Figures due out next
week are likely to show little
or no growth in the third
quarter, while the fourth
quarter looks any better.

Other pessimists point out
that the official EU forecast
assumes 2.4 per cent growth in
the German economic
outlook next year and wonder
whether this is achievable.

The Bonn economics ministry
announced last week that
third quarter GDP showed
almost no growth over the
previous period, due mainly to
the strong mark, which had
hit exports, slowed down
domestic investment and forced
corporate restructuring.

Hopes of a modest German
recovery next year are pinned
in considerable measure on an
improvement in consumer
confidence and spending, expected
as higher wages and a package
of tax cuts feed through in
the new year and employment
stabilises as restructuring draws

The foreign appetite for US Treasuries



to a close. But it is hard to see
much of an improvement in
confidence if German
unemployment keeps rising over
the next few months and some
of the country's biggest industrial
names continue with large
redundancy programmes.

So far there is no sign of this
cutting much ice with the
Bundesbank, several of whose
council members indicated last
week that while there might

eventually be scope for further
rate cuts, the time was not
ripe. Mr Franz-Christoph
Zeller, head of the current
economic slowdown was
temporary and that a hasty
move could undermine markets.

However, the Bundesbank
likes to catch traders on the
hop and some analysts wonder
whether such remarks could be
the prelude to a rate cut this
week.

Richard Mooney

Global Investor / Martin Dickson

All eyes on the Bundesbank

Total return in local currency to 22/11/95

	US	Japan	Germany	France	Italy	UK
Cash						
Week	0.11	0.01	0.06	0.71	0.20	0.13
Month	0.49	0.4	0.34	0.84	0.91	0.95
Year	8.75	2.89	5.50	6.25	8.87	7.85
Bonds 3-5 year						
Week	-0.16	0.34	0.28	0.16	0.05	0.25
Month	0.78	1.22	1.58	2.50	2.47	3.82
Year	13.92	33.53	18.87	12.45	14.56	12.99
Bonds 7-10 year						
Week	-0.26	0.43	0.16	0.02	-0.17	0.55
Month	0.79	1.33	1.77	3.44	4.12	2.73
Year	20.91	17.00	15.04	15.07	14.72	14.36
Equities						
Week	0.3	1.6	-0.2	-1.5	-0.7	0.2
Month	2.5	0.1	0.1	-1.5	-0.7	0.2
Year	36.8	-2.2	7.0	3.2	-6.9	22.8

Source: Cash & Bonds - Lehman Brothers. The FT-Global World Index is based on the FT-Global World Index, Standard & Poor's, and Standard & Poor's.

But the bank remains
concerned about the inflationary
impact of this year's 4 per cent
wage round and if it is true to
its cautious form it will
probably leave a cut until early
next year, when it will have a
longer run of monetary data on
which to base a decision.

Whenever the bank acts, the
market has little doubt that
German interest rates have
further to fall, with the more

optimistic analysts forecasting
a 2.5 per cent discount rate by
mid-year.

That, coupled with a benign
inflation backdrop, augurs well
for pan-European bond prices
and may help high yields, in
particular, narrow their spread
against bunds, where tighter
fiscal policies are also seen to
be producing results.

Equities are another matter.
A popular argument over the

past few months has been that
Europe is the place to invest in
1996, on the grounds that
America's extraordinary surge
in stock prices over the past
year must have almost run its
course, and Europe's position
in the economic recovery cycle
means that momentum will
now transfer to it.

But this now seems a little
too pat. It ignores both the
doubts about 1996 European
economic expectations and the
fact that Europe (the UK, in
some extent, accepted) still
lags well behind the US in
industrial restructuring. There
seems no compelling reason to
expect significant pan-European
equity out-performance of
the US in 1996.

Certainly, the prospect of
interest rate cuts present a
benign short-term backdrop for
both the fixed income and
equity markets, yet political
fall-out from implementation of
Maastricht criteria could mean
increased volatility in the first
half of 1996, and a fight to
quality.

France is again crucial. The
Government's commitment to

the franc fort, and the high
interest rates necessary to
support it, may prove increas-
ingly hard to sustain against a
backdrop of fiscal squeeze,
minimal growth and rising
political unrest, manifested in
the wave of union strikes.

Analysts' forecasts for
French growth next year average
around 2 per cent, though
one pessimist, Nikko's Stuart
Thomson, is forecasting just 1
per cent - and then only if the
Franc is devalued and significant
interest rate cuts take
place before the end of the first
quarter.

He thinks the franc could
come under impossible strain
early in the year if the DM
strengthens against the dollar.
The US currency, he argues, is
likely to weaken as Japanese
investors take profits on their
investment in US treasuries to
counter domestic write-offs.

Certainly, foreign investors
(and Japanese in particular)
have played a crucial part in
bolstering the US government
bond market over the past year
and their share of the market
is now almost as high as the
record level set in late 1978 (see
chart).

A significant diminution of
this position might affect both
the Treasury market and the
dollar, though the continuing
amalgamation of the US-Japan
trade imbalance may help
underpin the currency.

COMMODITIES

Coffee group under pressure

Delegates to the Association of
Coffee Producing Countries
meeting in Bali today and
tomorrow face a daunting task.
They will be trying to regenerate
belief in a price bolstering
export retention scheme that is
viewed with increasing scepticism
in the world coffee market.

Nearby coffee futures fell by
more than \$100 a tonne in
London last week and are about
\$700, or 24 per cent, below the
level at which they began the
year.

Export retention began

about two years ago and initial
appeared to work well. But the
original scheme became irrelevant
after two frosts and a
drought in Brazil lifted world
prices well beyond its target
range. The current scheme's
aim was to maintain prices at
those vastly more remunerative
levels; but the temptations of
the market have been much
greater and the resolve of the
ACPC members is assumed to
be that much less rigid.

Last week's price plunge
reflected expectations that this
week's meeting would reveal

waning commitment to the
retention scheme and might
result in a watering down of its
aims.

"There is some nervousness
about the ACPC scheme and
whether or not its members
believe the policy best serves
their interests," London broker
GNI said in a market report.
"What can they do? The market
is on its knees and the boys
are in deep trouble," a
London trader told the Reuters
news agency.

Key producers Brazil and
Colombia attempted, however,

to counter speculation, saying
changes were unlikely.

"Colombia will not agree to
any changes. It will not even
leave it open to debate," Mr
Jorge Carriana, head of the
powerful National Coffee
Growers Federation, told
Reuters in Bogota.

And Mr Rubens Barbosa,
ACPC President and Brazil's
ambassador said: "We will
remain united in our commit-
ment to the ACPC scheme." He
added, however, that the
market should not expect fire-
works from the Bali meeting.



It is a truth
universally
acknowledged
that a discon-
solate elector-
ate in posses-
sion of an
unpopular
government
must be in want of tax cuts.

This is no longer a truth just
for Tories. Last week's plan
from the Labour party to
reduce the lower rate of tax
from 20 to 10 per cent shows
its leadership shares the same
belief. But voters should ask
themselves whether any such
cuts would last.

One of the advantages of
setting the budget in Novem-
ber, for a fiscal year starting
the following April, is that
fine-tuning of demand
becomes absurd. Monetary
policy possesses both the
flexibility and the
needed effectiveness. The
question about taxation is
whether it can finance public
spending. Its structure should
impose as small an economic
cost as possible, while being
deemed fair enough to be
politically tolerable. Its level
should persuade the govern-
ment's creditors that its
finances are sustainable.

Unfortunately, deciding
whether public finances are
sustainable is difficult. The
question should be
approached in the same way
as engineers design bridges.
They would ask for more than
ones expected barely to
survive the worst conceivable
storm. A fiscal policy that
a country should just get away
with would be too risky. Since
the UK is a low-savings country,
while the ratio of net public
debt to gross domestic
product has just jumped from
38 per cent in 1990, to over 47
per cent this year, a wise
policy-maker would plan to lower
the ratio over the longer term.

Under plausible assump-
tions about the real interest
rate, economic growth and
inflation, this would imply an
average public sector borrow-
ing requirement of below 2 per

cent of GDP. Since the PSBR
in 1995-96 may end at around
3.7 per cent of GDP, according
to the Institute for Fiscal
Studies, it is far short of sus-
tainability.

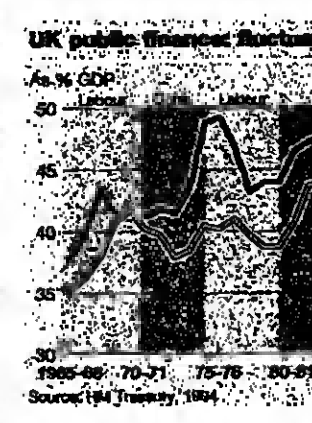
Wait, the chancellor will
cry. Last year, the Treasury
forecast that the PSBR would
be eliminated by 1999-99. True,
this year has seen substantial
slippage. Yet even the IFS
now suggests the PSBR could
disappear by the end of the
decade, provided the govern-
ment delivers the tight spend-
ing it has promised.

Is this plausible? The chart
shows that a quarter of a cen-
tury ago, the ratio of general
government spending to GDP
was 41 per cent. In 1995-96,
according to last summer's
Treasury forecast, it will be
41 per cent. In between, public
spending's share of GDP
has gone through three cycles,
with each peak a little below
the last. Yet now the govern-
ment has forecast spending
will fall below 40 per cent by
the end of the decade, a level
touched in the late 1960s, but
before that not since 1966-67.

Note, first, that the present
spending ratio is remarkably

Economic Eye / Martin Wolf

Tax promises, tax realities



low by European standards.
The richer continental coun-
tries spend between Ger-
many's 49 per cent of GDP in
1994, through Italy's 54 and
France's 55 per cent. Note, sec-
ond, that the government's
intention was to limit the
total increase in real public
spending between 1994-95 and
1997-98 to below 2 per cent.

In 1994, social security was
34.6 per cent of public spend-
ing, health 13.4 per cent, edu-
cation 12.6 per cent, defence
8.3 per cent, law and order 6.3
per cent and debt interest 7.8
per cent, for an 81.9 per cent
total. If the ratio of public
spending to GDP is to fall,
spending on these categories
must, collectively, grow sus-
tainably less rapidly than
GDP. How likely is that when
pensioners dependent on the
state are suffering a trend
decline in their relative
income, relative earnings of
unskilled workers are falling,
pressures on families are
growing, spending on health
is being pushed upwards by
changes in technology, demog-
raphy and real wages and the
need for more investment in

education is widely accepted?

Only a very determined gov-
ernment is likely to resist
these forces year after year.
Since 1985 the ratio of public
spending to GDP has averaged
just over 42 per cent of GDP.
A sceptical voter could reason-
ably assume this is what
would happen under the
Tories over the next ten. As
for Labour, it is by conviction
and interest the party of public
spending. Again, a sceptical
voter must assume that public
spending would be higher
than under the Tories.

To cover a spending ratio
averaging 42 per cent, the tax
ratio should average close to
40 per cent, which is what the
government expects it to be.
Any significant reduction in
the ratio of receipts to GDP
would then be unsustainable,
although the government
could still make headline
"cuts", because the ratio of
revenue to GDP rises automati-
cally in a progressive tax sys-
tem, with economic growth.

Yet the PSBR is the differ-
ence between two far larger
numbers. If, for example, the
spending ratio were to be
pushed sustainably close to 39
of GDP, as the Treasury has
suggested, tax reductions could
be almost three percentage
points of GDP. This would
allow Labour to increase real
spending on education by
more than a half, then the Tories
to lower the basic rate of tax
by 10p in the pound.

This is not inconceivable,
per cent, for an 81.9 per cent
total. If the ratio of public
spending to GDP is to fall,
spending on these categories
must, collectively, grow sus-
tainably less rapidly than
GDP. How likely is that when
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Notice is hereby given that for
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THE KINGDOM OF DENMARK

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payable on the relevant interest
payment date 28th February, 1996 will
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ATHENS STOCK EXCHANGE 17 Nov - 24 Nov '95

	ASE INDEX	P/E 95 (after tax)	P/E 94 (after tax)	EPS GROWTH (%) 95	P/E 95/94	P/BV 95/94	Div Yield (%) 95/94
Yearly High	874.47	22.4	16.3	22.4	7.3/10.1	3.1/3.2	5.2/4.4
Yearly Low	782.22						
WEEKLY VOLUME (USD m)	208.88						
%Chg (Prev. Wk)	23.08						
1 Yr Wk Avg (USD m)	100.99						

GREECE

GDP (USD bn) 95e 108.87

Per Capita Income (USD) 8,300

Inflation Rate (Y-o-Y, October 95) 8.30

12 month T-bill (%) end of October 95e 14.00

1-month Athens (%) 16.8

CPPI (USD) 222.78

A.S.E. Market Capitalization - 24/11/95 (USD bn) 76.40

FTCs & Rights Issues (USD m Jan 95-24 Nov 95) 311.32

FTCs & Rights Issues (USD m Jan 95-24 Nov 95) 311.32

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HYM MORTGAGE NOTES PLC

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Notice is hereby given that there
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£15,000 per £100,000 Note on the
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1995. The principal amount out-
standing per Note will be £78,370.

By: The Citicorp Investment Bank, N.A.

London Agent Bank

November 27, 1995

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Now Is The Time To Look At Investment In Russia.

The Russian Federation is launching a new phase in its privatisation programme, providing new opportunities for international investors.

Having completed the mass privatisation stage, the Government will now sell its residual shares in thousands of privatised companies across a range of industries at cash auctions and through tenders.

Investment in Russia benefits from the progress of economic stabilisation, enterprise restructuring, development of the capital market, and legal and regulatory reform.

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Take time to look at the investment opportunities in Russia.

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Mark:

NEW YORK

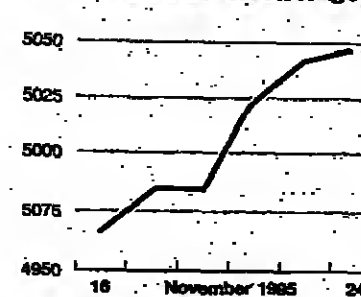
Investors look for clues from spending data

When the Dow Jones Industrial Average pushed through the 5,000 mark last Wednesday it set off a wave of speculation on Wall Street about whether or not blue chip shares could hold on to the astonishing gains made so far this month.

Much will depend on how investors view the economic prospects for the end of this year and the beginning of 1996. As the holiday shopping season begins in earnest this week, investors will be watching for retail sales indicators to see if growing consumer demand will help spur the economy.

Tomorrow's figures on November consumer confidence should provide some concrete signals about how much holiday shoppers are willing to spend. Economists from Salomon Brothers expect sentiment to increase by 2 points to 52. Wednesday brings figures on October durable goods orders, which economists think will have slowed

Dow Jones Industrial Average



moderately after rising by 5.1 and 2.9 per cent in August and September. Also important this week will be Friday's figures on manufacturing activity from the National Association of Purchasing Management. Economists are looking for the index of activity to have increased to more than 48 in October from 46.8 in September. Another influence on shares will come from the bond market, which could be bogged down with new supply to come from auctions of two-year and five-year notes tomorrow and Wednesday.

OTHER MARKETS

PARIS

In spite of the market's forward progress on Friday, investor sentiment continues to be plagued by industrial action being taken by unions in protest at the government's proposed reforms of social welfare, writes John Pitt.

The country's biggest unions have called a general strike for tomorrow. But the other main pressure comes from growing evidence that economic growth is slowing.

On Wednesday analysts will be scrutinising third-quarter statistics, which are expected to confirm this trend. Kleinwort Benson argues that the franc could well come under pressure once more, leading to a rise in short rates.

ZURICH

There is little in the way of corporate news this week to spur the market on to even greater heights, but that may not prove an impediment. Zurich has been on the upward track since April, with barely a backward look, reaching a series of all-time highs on the final three sessions of last week. The market's sharp upward progress in the autumn was

attributed to a strong inflow of German funds, seeking a safe haven as doubts emerged about the outlook for the D-Mark after the implementation of a common European currency.

More recently, domestic pension funds and financial institutions have been making the running. They have, by law, to make a return of 4 per cent a year. But with the yield on the long bond now below that level, and a depressed property sector, the funds have increasingly turned their attention to equities. Many analysts believe they will continue to do so, at least until the end of the year.

FRANKFURT

Hopes are rising that further interest rate cuts could be on the agenda for Thursday's Bundesbank council meeting. In London, James Capel says a moderate M3 release for October should be the last piece in the Bundesbank's interest rate-cutting jig-saw. "The recent real economy data have certainly been weak enough to justify a rate cut, while inflation remains well below the central bank's 2 per cent medium-term inflation target."

LONDON

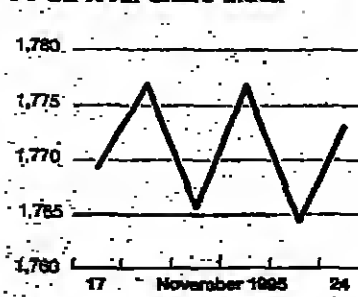
Dealers braced for news from the Budget

This could be a make-or-break week for the UK equity market, as investors brace themselves for tomorrow's Budget news. All the signals recently have pointed to tax cuts, balanced with public spending reductions, but too much of a "give-away" Budget could frighten institutional investors.

Dealers have been quick to point out that this could be the last Budget from the present government before a general election takes place. A reduction in interest rates would be very well received in the stock market and might well be followed by a cut in German rates when the Bundesbank meets on Thursday.

Whatever rabbits the chancellor pulls out of the hat, there are still powerful forces responsible for driving the main stock market indices to record levels recently. The most potent of these is the continuing emergence of takeover bids; last week saw Granada launch a

FT-SE-A All-Share Index



hostile £200-plus bid for Fortis, the hotels group, and Lyonnaisse des Eaux make its long-awaited offer for Northumbrian Water. The market's surge to its present lofty perch has not occurred without some painful setbacks, however, from profit warnings and disappointing earnings reports. There is plenty of scope for disappointment in the week's company news list. Six FT-SE 100 companies are scheduled to report, including Hanson, Grand Metropolitan, Royal Bank of Scotland and Argyll.

International offerings

Grupo Sol Meliá a prime candidate for flotation

As the cold winter approaches, who could turn down the invitation to fly off to Spain to meet the expectations of Grupo Sol Meliá, the country's largest hotel company?

Although Grupo Sol has yet to make a decision on whether to go public, a flotation sometime next year is certainly on the cards. A spokesman said the company would come to the "final consulting stages" in February or March.

Eight banks, four American and four European, submitted their written submissions to Grupo Sol last week. Given the overwhelming investor response in recent months to initial public offerings by consumer-oriented companies, namely Adidas and Gucci, the competition to win this mandate will be stiffer than usual.

Grupo Sol has an interesting investment case for international investors who are sick of hearing about telecoms companies or European privatisations. It is a family-owned company which is now in need of outside shareholders to finance its transition from a Spanish hotel chain to a fast-growing international concern.

It would also be the first hotel chain to list on the Madrid stock exchange, thus giving investors exposure to Spain's buoyant tourism industry for the first time.

Founded in 1956 by Mr Gabriel Escarrer, the company's chairman and owner, Grupo Sol has left behind its origins as a provider of cheap "sun and sangria" package holidays to north European tourists.

Although it is still based on the holiday island of Majorca, the birthplace of Mr Escarrer, the company now manages 182 hotels in 22 countries, from Latin America to the Far East. With annual turnover running at more than \$1bn, it has become Europe's third-largest hotel chain and it is continuing its efforts to establish its brands at the more exclusive end of the market.

Its core operation is still in Spain, where 65 per cent of its hotels are based, but its future growth lies abroad and in business travel rather than mass

Tourism has always been a crucial sector in Spain's economy, making up broadly 8 per cent of its gross domestic product (GDP), Pilar Junco writes. Some even venture to call it the most important sector in the country, but as it is not very well defined, it is difficult to establish how much it contributes to Spanish GDP.

After the US and France, Spain ranks third in the World Tourist Organisation tourist destination list and its tourism receipts in 1992 were around Ecu16.2m. Spain received 61.4m tourists in 1994, 6.5m from Britain, according to the Spanish commerce and tourism ministry, a number that almost doubles the Spanish population. Of these, 42 per cent stayed in hotels or hostels on average for about two weeks.

In the 1960s and 1970s, tourists travelled to Spain for the beach, sun and sangria at cheap prices, but in recent years the sector has recognised the need to widen its range of hotels to meet the expectations of a new generation of visitors. Major efforts still have to be made to meet European quality standards, reduce environmental and ecological damage and improve general infrastructure.

In the late 1980s the sector suffered a setback due to new competition from Greece, Turkey and Italy. It was not until the devaluation of the peseta in 1992 and 1993 that tourism revived and 1994 was a record year for tourism in Spain.

Salomon Brothers expects net international tourism receipts to rise by about 10 per cent this year and to continue to exceed the trade deficit.

market tourism. Analysts also believe that Grupo Sol would rather concentrate its resources on hotel management than on owning the hotels themselves. Currently, the company owns about 67 per cent of its hotels.

"We are trying to escape from bricks and mortar - we would prefer to be hoteliers," said Mr Angel Palomino, executive vice-president of Grupo Sol at the annual European hotel industry conference held recently here in London.

He also told delegates that the company planned further geographic diversification by expanding its management and franchise contracts. This vision has raised some questions about what the company will ultimately choose to do. Analysts say one option for Grupo Sol is to float off the ownership of the hotels and fund the expansion of its management operation with the proceeds.

On the other hand, the tourist hotels, built at a low price some 20 or 30 years ago, are now cash-cows which could also fund the expansion, in which case a straightforward flotation would be more likely. It is not yet clear how much of the company will be put up for sale. Since it has been built up and is owned by one man, bankers expect only a minority stake to be sold off in the first instance. However, some sort of capital increase is envisaged to allow the company to reduce debt.

Valuing the company is also expected to be quite an elaborate task, in view of its mixture of agreements. However, Granada's bid for Fortis in the UK should provide some useful comparisons.

Banks which fail to get a role in Grupo Sol's flotation should not despair for long because other Spanish hotel chains are considering similar capital-raising exercises. NH Hoteles, Spain's fifth-largest hotel chain, could be a candidate as could the state-owned Paradores de Turismo.

● The outlook for the primary market must be bullish if syndicate managers leave before collecting their annual bonuses.

Salomon Brothers has poached Mr John St John and Mr Michael Lavelle from Kleinwort Benson as part of its drive to become an equity house. The pair start in January.

Antonia Sharpe

EMERGING MARKETS: This Week

The Emerging Investor / Peter Montagnon

Looking at a dead cat bounce in Asia

Good news on Wall Street is nowadays bad news for Asia, it seems.

Brokers in the region have learned the hard way that the successive records notched up by the Dow Jones index this year were keeping money locked up in the US as investors had little incentive to look further afield.

But with the Dow having broken comfortably through the 5,000 level, they are again asking how soon it will be before it peaks, and investors start looking for brighter prospects elsewhere.

In theory, Asia should be an obvious place for them to turn: growth rates are still high compared with the older industrial world and, while valuations on Wall Street look overextended, many in Asia are looking cheap given the poor performance of most of the region's markets this year.

The snag is that it is so hard to predict the timing. The light upturn in many Asian markets last week could be a sign of a change in sentiment, but few analysts are sanguine in the short term. Most say it bears the hallmarks of what the jargon unflatteringly calls a "dead cat bounce".

Mr John Mankay of UBS Securities (Hong Kong) says last week's recovery was a pure technical rebound. "I don't think we're seeing recovery from the bottom. The fundamentals are still stacked heavily against the region."

One does not have to look far

to see what he means. A number of markets have been wrestling with their own local problems over the past month.

In Thailand, where one investor shot himself, the government has had to mount a rescue operation to try and drive share prices up. Indonesia has had to grapple with the disappointing response to the Telkom flotation.

Share prices in the Philippines have slid amid worries about the impact on the economy of recent storm damage as well as doubts over the government's ability to control inflation and pursue its economic reform programme. The corruption scandal in South Korea has undermined confidence as several large companies were accused of bribery.

To some extent these developments might be regarded as just unfortunate coincidence. The South Korean scandal should do little to alter the relatively strong earnings prospects which were buoying the market before it broke, but elsewhere in the region there is a unifying theme.

Governments in many Asian countries are still coping with the consequences of economic overheating.

Thus, with real interest rates in Thailand standing at some 6 per cent, there is little incentive for local investors to add to their equity holdings.

Most economists believe that brakes will have to remain on for a while longer in several countries. So, markets like

Country	Mkt cap/\$bn	eps/95	pe/95	pe/eps 95
China	46.5	11.9	10.3	0.87
Indonesia	54.7	28.8	14.1	0.49
Malaysia	232	10.0	19.7	1.97
Philippines	61.2	28.5	17.2	0.60
Thailand	150.8	14.8	18.7	1.26
S.Korea	186.1	22.4	11.9	0.53
Taiwan	172.3	16.0	17.2	1.07

Thailand and Malaysia may have further to fall before they finally recover. Indonesia will take time to digest the Telkom debacle. Most analysts are reluctant to make direct comparisons between the Philippines and Mexico, not least because its current account position is not as bad, but it will clearly take several months before the government can restore confidence in its policies.

As for US investors, they remain "cautious" according to Mr Timothy Moe of Salomon Brothers in Hong Kong, who adds that they will be selective when they do eventually return.

"Why should they take an emerging market risk when they have been able to get such a good return in their own market?" says Mr Peter Churchouse of Morgan Stanley.

Looking ahead, most assume that sentiment will change in the course of 1996 - but it will almost certainly take an influx of international money to get things moving again. For that to happen, US investors must have decided that the bull run

ment over the extent to which the Hong Kong market is actually cheap. Mr Moe of Salomon Brothers expects more positive news on earnings. "We're more likely to see upgrades than downgrades as we move into 1996," Morgan Stanley's Mr Churchouse says that Hong Kong shares are on a prospective earnings multiple just below 10 per cent. That makes them cheap, especially since they are also trading on a multiple of just 1.7 times book value compared with a peak of 3.3 times in late 1993 and early 1994.

Mr Moe says of UBS is somewhat more cautious, putting the prospective multiple closer to 11 times. That is hardly expensive, he says, but the Hong Kong market is likely to be heavily driven by the property market and that is still not showing signs of a significant recovery.

Ironically, many international investors have been underweight in Hong Kong relative to the region this year and have therefore missed out on its relative strength. The risk is that they could lose out again if they remain so.

While Singapore has displayed its traditional defensive characteristic - outperforming in the downturn and underperforming in the upturn - Hong Kong's liquidity has always made it one of the first to respond to changes in international sentiment. But it may be some months yet before such a change in sentiment occurs.

Philip Gawth

CURRENCY MARKETS

Markets eye Clarke and Buba

It would be difficult for foreign exchange markets to repeat the soporific pattern of last week, and the British budget tomorrow and the Bundesbank council meeting on Thursday should be sufficient to ensure that they do not.

Sterling performed much more steadily last week after sinking to a historic low against the D-Mark, and on a trade weighted basis, the previous week.

This was the result of a shift in market sentiment towards the view that Mr Kenneth

Clarke, the chancellor, will probably deliver a fiscally responsible budget.

Markets had earlier been concerned that Mr Clarke would be tempted to dispense with fiscal prudence in a reckless effort to try and bolster the government's flagging political fortunes.

Some recent investor surveys have found that companies, investors and interbank participants are all slightly underweight sterling.

This would suggest that UK assets and sterling may well

attract investor support if the budget is well received.

Whatever happens to sterling is likely to be a fairly localised matter.

But the decision of the Bundesbank council could well have wider ramifications. A cut in German interest rates could be expected to unleash a wave of concerted cuts from other European countries.

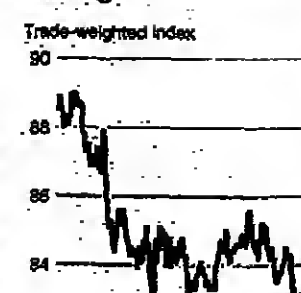
It could also fuel a further rally in currencies like the Swedish krona and the peseta, not to mention sterling and the French franc.

It is less likely to have an impact on the dollar, which is labouring under the pall of the budget imbroglio in the US.

The argument in favour of an early cut in German rates is based on the view that if the council wishes to cut this year, it will need to do so this week. The only other option it will have is at the December 14 meeting.

Action there is considered unlikely because it is too close to the European Union summit in Madrid, and the council will

Sterling



Source: FT Data

also have its hands full discussing the M3 target for 1996.

Africa

Framlington, the UK fund management company owned by CCF, the French banking group, is launching a closed-end fund to invest in Francophone Africa, writes Joel Kibozo.

The West Africa Growth Fund will be listed in Luxembourg and capped at \$40m. Initial investors include the IFC and Caisse Française de Développement, the French development bank, which are investing \$14m.

The fund will invest primarily in newly privatised companies, as well as private and listed companies in the 13 West African countries in the CFA franc zone. However, Framlington said a majority of the portfolio will be invested in Ivory Coast, Senegal, Cameroon and Congo, with priority given to joint ventures with companies from French speaking countries.

Framlington already has a \$30m fund for Morocco and Tunisia.

Latin America

Salomon Brothers has added Brady bonds to its portfolio, believing the region's equity markets will perform unspectacularly in the early part of 1996, which should encourage interest in debt instruments. It also moved its allocation in Brazil down to 37 per cent from 42 per cent. This is "due to slower-than-expected progress

News round-up

on fiscal reforms and the expectation that interest rates will drop more slowly in 1996. We nevertheless remain positive on Brazil for later in 1996."

Baring Asset Management believes that growth will pick up next year in the region. Baring favours Argentina and Mexico, while Chile is also favoured "given the virtuous combination of strong growth, political stability and reasonable valuations".

Romania

The state ownership fund will issue a list of 200 companies in which it plans to sell 40 per cent next month as part of the privatisation programme. The 200 companies would be selected from 3,905 listed for sale on profitability criteria and will cover all economic sectors. Under the scheme 17m Romanians can get up to 60 per cent of those companies in exchange for privatisation paper. The rest will be put up for sale for cash.

Mexico

Bear Stearns has raised projections for growth and inflation in Mexico in 1996. However, the US investment bank lowered its growth forecasts. The growth estimate for 1996 was raised to 2.9 per cent from 1.0 per cent, reflecting growth in consumption and investment.

On inflation, it raised its forecasts to 62 per cent from 45 per cent, saying this assumed an 80 per cent pass-through of currency weakness into inflation over two years.

Russia

The Russian Federal Property Fund is auctioning 4 per cent of the KamTek oil company between November 29 and December 29. The state will retain 51 per cent; the rest will be sold at auctions and investment tenders.

● Edited by John Pitt. Further coverage of emerging markets appears daily on the World Stock Markets page.

Baring Securities emerging markets indices

Index	24/11/95	Week on week movement	Month on month movement	Year to date movement
World (360)	139.05	+4.26	+3.16	-5.62
Latin America				-4.54
Argentina (23)	82.97	+6.79	+8.92	+7.87
Brazil (22)	179.32	+6.80	+8.92	+7.87
Chile (15)	180.22	-0.82	-0.46	-14.03
Mexico (24)	67.72	+7.79	+13.01	-0.39
Peru (15)	850.26	+83.04	+9.58	-82.11
Latin America (89)	114.68	+5.95	+6.45	-4.72
Europe				-3.96
Greece (20)	95.21	-1.17	-1.21	-9.35
Portugal (23)	114.72	-0.88	-0.59	-4.58
Turkey (21)	94.05	-1.04	-1.09	-18.34
Europe (57)	117.59	-0.91	-0.77	-0.81
Asia				-11.07
Indonesia (32)	130.58	+2.87	+2.25	-16.26
Korea (23)	145.19	-0.14	-0.10	-8.95
Malaysia (22)	211.21	+5.58	+3.22	-7.45
Pakistan (16)	66.05	-3.08	-4.48	-14.99
Philippines (15)	231.42	+8.31	+3.72	-29.21
Thailand (26)	240.27	+6.04	+2.59	-11.84
Taiwan (31)	115.77	-0.54	-0.29	-13.52
Asia (160)	181.06	+3.55	+1.59	-13.94
Year to date movement				-12.01
Latin America				-3.14
Argentina (23)				-3.05
Brazil (22)				-14.35
Chile (15)				-31.85
Mexico (24)				-30.83
Peru (15)				+11.87
Latin America (89)				-17.36
Europe				+8.22
Greece (20)				-1.84
Portugal (23)				+23.57
Turkey (21)				+20.71
Asia				-2.32
Indonesia (32)				+3.79
Korea (23)				+0.18
Malaysia (22)				-37.80
Pakistan (16)				-17.97
Philippines (15)				-4.52
Thailand (26)				-37.13
Taiwan (31)				-19.58
Asia (160)				-2.29

All indices in \$ terms, January 7th 1992=100. Source: Baring Securities

Emerging Stateside

Latest 2 day in Ottawa - Chicago, 4 day Toronto - Atlanta



SPOT FORWARD

Rockwell

AUTOMATION • AVIONICS • TELECOMMUNICATIONS
DEFENCE ELECTRONICS • AEROSPACE • AUTOMOTIVE • GRAPHIC SYSTEMS

U.S. INDICES

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000
Home	5043.84	5211.85	5233.55	5949.88	5352.08	5096.94	5122	(24/11)	(3/1)	(24/11/08)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

Price subject to tolerance

NOTES - Prices on this page are as quoted on the attached exchange and are subject to local market conditions. Inquiries for 1964 prices should be directed to the nearest office of the International Sugar Association, 1100 Broadway, New York 10036, or to the nearest office of the International Sugar Association, 1100 Broadway, New York 10036.

FT FREE ANNUAL REPORTS SERVICE

This service is available to all members of the International Sugar Association. It provides a comprehensive report of the sugar market, including prices, production, and consumption. The report is published annually and is available to members at a special discount rate.

Mar	608.80	608.85	+1.25	607.15	605.50	1,010	18,943
	Open Settle price		Change	High	Low	Est. Vol.	Open Int.
Nikkei 225							
Dec	18240.0	18230.0	-30.0	18270.0	18200.0	12,253	152,778
Mar	18200.0	18260.0	-30.0	18310.0	18240.0	11,289	30,564

Open volume figures for previous day.

* Excluding bonds, 3 futures, plus Utilities, Financial and Transportation.
† Includes and excludes the same items as the futures and lowest price reached during the day by the
‡ Level (expressed by Tattersall) represent the highest and lowest values that the index has reached
§ Previous day's. ¶ Subject to official recalculation.

	Stocks Traded	Closing Prices	Change on day
ny _____	4.3m	811	+3
State _____	3.8m	400	+10
Corp _____	3.5m	364	+2
_____	3.5m	1240	
_____	2.8m	2	

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FT MANAGED FUNDS SERVICE

FT MANAGED FUNDS SERVICE

[illegible]

LONDON SHARE SERVICE

BANKS, MERCHANT

Company	Price	Change
Barclays Bank	125.00	+0.50
HSBC Bank	110.00	+0.25
London City	105.00	+0.10
M&P Bank	95.00	+0.15
NatWest Bank	115.00	+0.30
Paragon Bank	85.00	+0.10
Prudential	130.00	+0.40
Royal Bank	100.00	+0.20
Santander	120.00	+0.35
TSB Bank	90.00	+0.15
Yorkshire Bank	80.00	+0.10

BANKS, RETAIL

Company	Price	Change
Bank of Scotland	115.00	+0.25
Bank of Wales	105.00	+0.15
First Direct	95.00	+0.10
First National	100.00	+0.20
First State	85.00	+0.15
First Tower	75.00	+0.10
First Trust	65.00	+0.10
First Union	55.00	+0.10
First World	45.00	+0.10
First York	35.00	+0.10
First Zetland	25.00	+0.10

BREWERIES

Company	Price	Change
Adnams	120.00	+0.50
Beck's	110.00	+0.25
Carlsberg	105.00	+0.10
Guinness	95.00	+0.15
Heineken	85.00	+0.10
King	75.00	+0.10
Miller	65.00	+0.10
Newcastle	55.00	+0.10
Old Blend	45.00	+0.10
Old Blend	35.00	+0.10

BUILDING & CONSTRUCTION

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

BUILDING MATS. & MERCHANTS

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

CHEMICALS

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

DISTRIBUTORS

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

DIVERSIFIED INDUSTRIALS

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

ELECTRICITY

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

ELECTRONIC & ELECTRICAL EQPT

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

ENGINEERING

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

ENGINEERING, VEHICLES

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

EXTRACTIVE INDUSTRIES

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

HOUSEHOLD GOODS

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

INSURANCE

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

INVESTMENT TRUSTS

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

INVESTMENT TRUSTS - Cont.

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

INVESTMENT TRUSTS SPLIT CAPITAL

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

ELECTRONIC & ELECTRICAL EQPT - Cont.

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

EXTRACTIVE INDUSTRIES - Cont.

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

HOUSEHOLD GOODS - Cont.

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

INVESTMENT TRUSTS

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

INVESTMENT TRUSTS - Cont.

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

INVESTMENT TRUSTS SPLIT CAPITAL

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

INVESTMENT TRUSTS - Cont.

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

INVESTMENT TRUSTS SPLIT CAPITAL

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

INVESTMENT TRUSTS - Cont.

Company	Price	Change
Arrol-Johnston	120.00	+0.50
Balfour Beatty	110.00	+0.25
Bechtel	105.00	+0.10
Bois	95.00	+0.15
Bois	85.00	+0.10
Bois	75.00	+0.10
Bois	65.00	+0.10
Bois	55.00	+0.10
Bois	45.00	+0.10
Bois	35.00	+0.10

INVESTMENT TRUSTS SPLIT CAPITAL

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Air Alg	8	85	10	27 1/2	27 1/2	27 1/2	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	0.32	16	25 1/2	31	31	31	+
Air Ind	8	85	10	16	16	16	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Health Co	81	255	1	1	1	1	+
Alpha Int	8	85	10	14 1/2	14 1/2	14 1/2	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Helco	0.15	19	12	14 1/2	14 1/2	14 1/2	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
Am Int	105	7	7	10	10	10	+	Crown C	0.40	14	34	14 1/2	14 1/2	14 1/2	+	Heater	14	35	10	10	10	10	+
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MOBILE COMMUNICATIONS

A market poised for global take-off

After steady growth in the 1980s, the industry is now set for a period of rapid expansion. Alan Cane looks at the forces that will shape its future

More than 20 years after Bell Labs in the US demonstrated that cellular radio could be used to provide mobile communications for a mass market, the industry seems bound for a phase of dramatic expansion that could see as many wireless as fixed wire networks in place early next century. Compound annual growth rates already range from 16 per cent in the UK to 54 per cent in Australia and 115 per cent in Taiwan, according to International Telecommunications Union statistics.

In the Asia Pacific area, for example, where developed and underdeveloped markets exist side by side, there are expectations that the number of mobile subscribers will increase from 10.8m at the end of 1994 to almost 74m by the end of the decade.

The vision is of a world where terrestrial and satellite based mobile communications systems will allow people to make and receive calls from any point on earth using the same multi-purpose handset whether at home, in the office or outside.

The first signs of this shift to ubiquitous personal communications are evident in the success this year in Japan of the "Personal Handy Phone", an inexpensive, lightweight handset that operates as a cordless telephone in the home and a cellular phone elsewhere.

It is also evident in the number of consortia competing to establish satellite-based systems for inexpensive worldwide personal communications. These include Iridium,

led by Motorola, ICO Global Communications, established by Inmarsat, Globalstar led by Loral and Odyssey headed by TRW.

This potential boom for network operators and equipment manufacturers was not always obvious and, indeed, there are still question marks over the projected demand for mobile services.

Nobody should forget that AT&T, the largest US telecoms company and at that time owner of Bell Labs, abandoned the mobile phone business in 1984, believing that it would never develop sufficiently to be a viable proposition. Last year it paid \$12.5m for McCaw Cellular Communications to get back into the business and is now the largest cellular operator in the US.

The forces for change are partly technological. They include the shift from analogue to digital networks, which should lead to improved performance, more efficient use of the radio spectrum and greater security. There is also the expectation of a decline in the price of both hardware and services as competition bites and technology makes possible smaller, cheaper and more powerful handsets and base stations.

Among the principal trends is the emergence of a battle for dominance in the newer digital technologies. Standards are the key to mass acceptance of new technologies. Already some 60 subscribers in 95 countries use digital mobile phones based on the GSM standard.

GSM, the Global Standard for Mobile telephony, was established by the European telecoms authorities in 1981, concerned that progress in mobile communications was being hampered by Europe's collection of incompatible analogue networks.

As offered by mobile operators across Europe, GSM operates at 900 MHz. Personal Communications Networks (PCN)

of the kind offered in the UK by Mercury One-2-One and Hutchison Orange use essentially the same technology, operating at 1800 MHz. PCN are available in the UK, Germany, France, Thailand, Malaysia and Singapore.

The principal challenge to GSM as a global standard comes from a technology called Code Division Multiple Access (CDMA). This is particularly true in the US where the migration to digital technology is taking place more slowly than in Europe.

CDMA, a more recent technology than GSM, seems to offer a number of advantages over the European standard. It uses available radio spectrum even more efficiently than GSM, so making it possible to cram many more customers onto the same airwaves.

Dr Andrew Viterbi, chief technical officer of Qualcomm, a US company that has pioneered CDMA, explains the technology: "The CDMA concept makes every user sound like noise [interference] to every other user. If you take that as a premise, then you no longer have the same bandwidth allocation limit."

Another way to understand a CDMA network is to think of a roomful of couples each speaking a different foreign language. Each pair will understand each other; they will simply fail to understand, and will therefore ignore, other couples' conversations.

While Qualcomm has shown CDMA works in demonstrations, the technology is yet to be proved in a commercial network. The first examples to go live are expected to be in Hong Kong and Los Angeles. CDMA has, however, been adopted as the preferred technology of a number of US consortia planning to offer personal communications services in the US.

These include PrimeCo, a consortium of Nynex, Bell Atlantic, US West and AirTouch Communications.



Dr Viterbi believes that GSM will continue to dominate the European and Asian market, and have only a small foothold in the US, where he thinks CDMA will eventually prevail. He emphasises that the battle in the US is not between CDMA and GSM but between CDMA and TDMA (time division multiple access), a technology that has similarities to GSM and is AT&T's technology of choice.

The answer for global "roaming" (moving from geographic area to geographic area without losing the communications link) will be a dual mode phone able to operate on either the GSM standard or CDMA, depending on which technology is prevalent in the region.

Earlier this year, the US Federal Communications Commission (FCC) invited bids for licences for personal communications services. The auction of some 99 licences in 51 geographic markets across the country raised more than \$70m

and resulted in an entry in the Guinness Book of Records. According to Mr Reed Hundt, FCC chairman: "This was a fascinating and hideously complex challenge. Nobody had held a successful auction of the airwaves until we did it."

The biggest bidders were WirelessCo, a consortium of Sprint, TCI, Cox Cable and Comcast, AT&T Wireless, PrimeCo, Pacific Telesis and GTE Macro.

What encouraged these groups to bid huge sums was the hope that the broadband wavelengths would be used for a host of new and potentially lucrative mobile services.

It is not, however, an odds-on bet. According to the US Office of Technology Assessment (OTA): "Much of the excitement that surrounds wireless communications is based on assumptions analysts and companies make about what people and businesses want, but there is little agreement on how big the potential market for wire-

less might be. The growth of cellular telephone services is high, running at about 45 per cent per year in the US until 1994, with comparable rates in other developed countries. Paging, another widely used service, has experienced growth rates of about 20 per cent a year for nearly a decade."

The OTA argues the consensus is that the demand for at least some kinds of mobile services will be very high, pointing out that some analysts believe as many as 100m people will be using some kind of wireless telecommunications device by 2010.

The mobile communications industry has developed more slowly in Europe than the US, and cellular penetration is relatively modest - 4.1 per cent in Germany and 8.5 per cent in the UK compared with 10.8 per cent in the US. Analysts - for example, Mr Stuart Birdt of Goldman Sachs - argue that this will change as mobile communications are seen to offer

better value for money. As operators continue to expand their networks, the quality of service should improve and both handset prices and tariff levels should drop.

The trend towards market liberalisation in Europe should also favour the growth of the industry. "Until recently, many European countries had one cellular network operator, the domestic fixed-line telecoms services company," says Mr Birdt. "As a result of the monopoly position and the view that the service could cannibalise revenues from the fixed-line business, the operators generally under invested in and under marketed mobile services, accounting for the relatively low penetration rates in selected countries."

Mr Birdt concludes: "As more network operators emerge, without this conflict of interest, we expect increased marketing efforts to raise awareness of cellular services and help stimulate demand."

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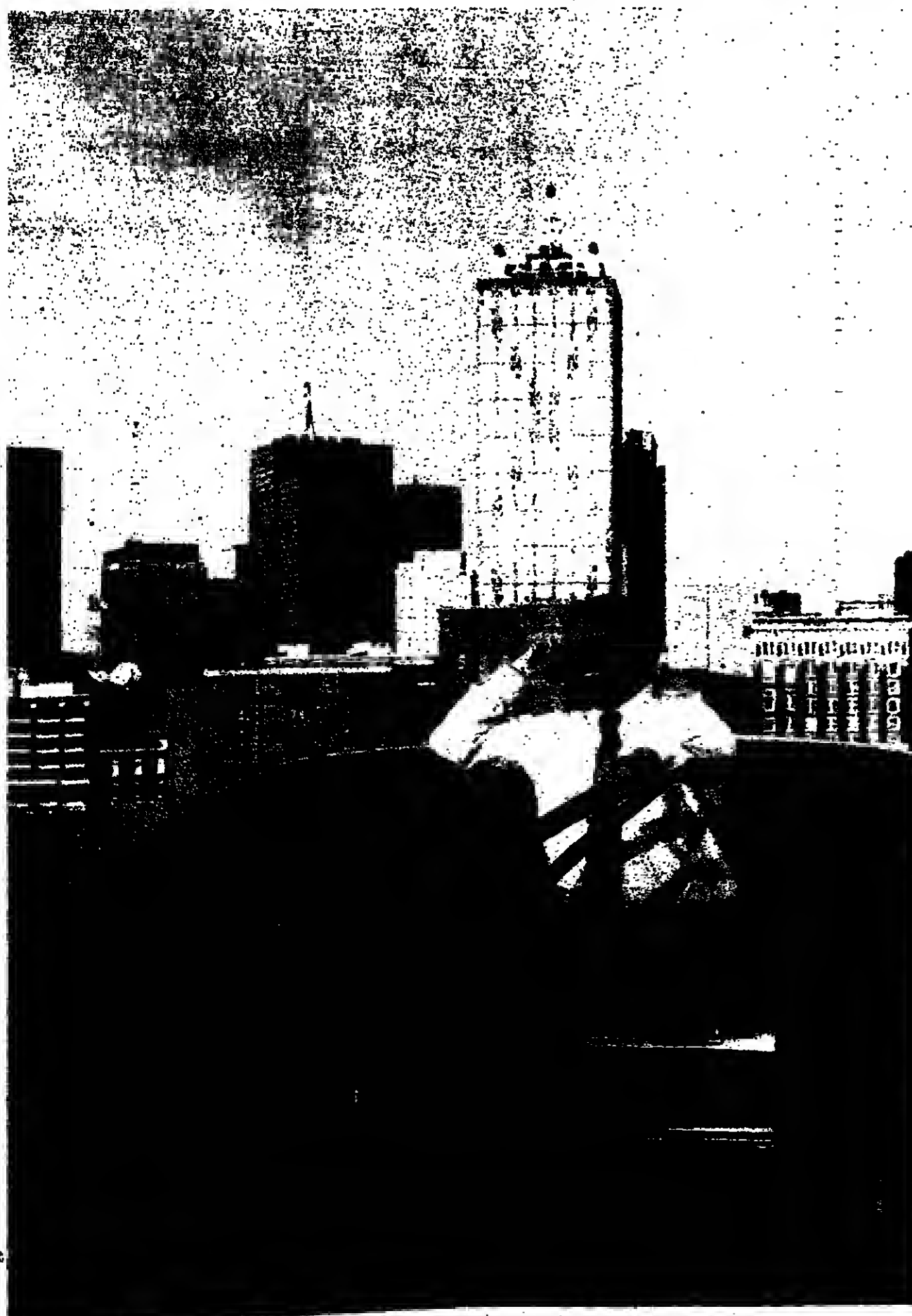
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2 MOBILE COMMUNICATIONS

■ The UK: by Alan Cane

In the grip of growing pains

Rapid expansion and a changing customer base are just two of the sector's challenges

The promise and the pitfalls of mobile telephony in the UK are illustrated by several recent events. Last month, Mercury One-2-One, one of the country's two Personal Communications Services operators, said it had successfully completed a £800m syndicated bank loan. The loan was 30 per cent oversubscribed.

The announcement came only a matter of weeks after Hutchison Telecommunications, operators of the Orange cellular network, One-2-One's immediate competitor, said it was arranging syndicated bank loans of £1.2bn.

Both groups will use the funds to re-finance existing debt and continue the expansion of their respective networks. The size of the loans, the terms on which they were granted and the ease with which they were arranged, reflect the strength of the industry and investors' faith that growth is guaranteed to continue.

On the other hand, service providers, the intermediaries between network operators and their customers that are responsible for billing users and collecting payments, are either thinking about, or have started to implement, call charge limits to prevent their

customers spending more than a previously agreed amount on calls each month.

The purpose is both to protect customers from fraud, theft and unauthorised use of their phones and to protect the service providers from giving unlimited credits.

The inference is that the industry is set for further expansion in the UK but that it has yet to come to terms with ways of managing its own growth, a changing customer profile and rapidly advancing technologies. The UK may be the cheapest place in Europe to buy the physical telephone handset, but the industry is still seeking the best way to educate its potential customers about the real costs of the service.

This is given added urgency by the fact that most of the growth is expected now to be in the residential rather than the business sector. With almost 5m subscribers in total, there is only 8.5 per cent penetration (number of subscribers per 100 head of population) compared with 22.5 per cent in Norway, 21.7 per cent in Sweden and 10.8 per cent in the US.

According to research from Goldman Sachs, the US investment bank, the number of customers is expected to reach more than 20m by 2004, a penetration rate of 33.8 per cent and a compound annual growth rate from 1994-2004 of 18 per cent.

The problems of expansion in the residential sector, how-

ever, have been well rehearsed. Customers are much more sensitive to price and revenues per head are smaller because they make less use of the phone than business people.

For example, Vodafone, the UK's largest cellular operator with 2.19m subscribers, reckons that those on its "LowCall" analogue tariff scheme each produced annual revenues of £230 last year, compared with an overall average revenue per subscriber of about £600.

The level of "churn" - a measure of the number of customers leaving the network voluntarily or involuntarily - is higher than for business users. At least some of this churn reflects customer disillusionment with mobile telephony. The low prices of the handsets belies the fact that the monthly bills for the service can be hefty.

Handset prices - for analogue phones at any rate - are low because operators and service providers pay handsome commissions to dealers for signing up new customers.

Capacity, however, has become a problem for the older network operators. The earliest cellular networks of Vodafone and Cellnet were based on analogue transmission - a system called TACS - simply because that was the prevailing technology at the time. It does, however, make comparatively ineffective use of the available bandwidth; digital or computer-language systems can accommodate between four and 10 times as many conver-

sations within the same bandwidth, depending on the technology used.

Orange and One-2-One, which operate only digital services, reckon to be able to accommodate about 10m customers each. Vodafone and Cellnet are close to the limit of their capacity in their analogue circuits and their future expansion will be determined to some extent by the rate at which they are able to move existing and new customers from analogue to digital services.

All the four UK operators offer a digital technology based on variations of the Global System for Mobile Telephony (GSM), which is now standard across Europe and which has been adopted by some 156 operators in 86 countries.

Vodafone and Cellnet, however, have been allocated only enough digital capacity for about 1m customers each and both companies have asked the government to award them spare capacity in the region of the spectrum allocated to One-2-One and Orange. So far, no ministerial decision has been announced.

Phone theft and fraud is another and compelling problem for all the UK operators. The total direct cost to the mobile telephone industry and its customers is now estimated at more than £100m annually. Mr Ian Taylor, science and technology minister, said earlier this year that the Government would consider tightening legislation to outlaw

certain kinds of mobile phone fraud, including the use of scanners to intercept electronic codes transmitted over analogue networks and the "reclipping" of mobile phones - that is, creating clones of phones by modifying their electronic identities.

An industry study group, set up in the middle of the year, said new legislation was urgently needed. It recommended that the existing offence of dishonestly obtaining telecommunications services with intent to avoid payment should also cover the possession or supply of equipment capable of use in connection with that offence.

Members of the Federation of Communications Services have already agreed to set up a crime prevention scheme aimed at banning dishonest mobile phone dealers.

The operators have begun to include special intelligence in their networks that tells them, for example, if phones with the same apparent identity are being used in two geographically separated locations at once, giving them the option to close one or both of them down.

Digital phones, which use a technology first developed for military purposes, are resistant to scanning, although it is possible for network operators to monitor calls because of their knowledge of the technology. With the steady move to digital technology, fraud, if not handset theft, will become increasingly difficult.

■ UK service providers: by Michael Dempsey

Trade body challenges regulator

The FCS fears takeovers and mergers have led to conflicts of interest

Five years ago, the UK mobile communications industry had 60 service providers (SPs). Today there are 35. This dramatic reduction reflects both a number of business failures and a series of mergers and takeovers. It is the latter - with its implications for competition - that is now causing the Federation of Commu-

nications Services (FCS) concern. When the first UK mobile communications licence was issued in 1983, the industry was structured around a two-tier system of networks companies and airline managers, or SPs. These were meant to be kept well apart. The service providers were supposed to protect consumers from the

anti-competitive pricing policies that might result from the existence of just a handful of network providers.

It is a confusing sector, but, put simply, the SPs can be thought of as a kind of super-market that brings the mobile telephony goods to shelves. Mr David Savage, chairman of the UK's largest service provider, Astec Communications, and head of the FCS's Cellular Services Providers group, explains: "SPs find the cus-

tomers for the network operators. We make our money by billing those customers. They are charged a retail rate while we pay wholesale."

This simple image, however, obscures a complex set of rivalries and allegiances. The original vision of a two-tier system is fast becoming anachronistic. The network provider Vodafone owns a 33 per cent stake in the largest SP, Talkland. Cellnet is owned by Securicor and British Telecom.

While Mercury and Orange, owned by Hutchison Telecommunications, have been selling airtime direct since they arrived in the increasingly deregulated market.

Mr Savage alleges that OfTel, the independent watchdog that regulates the UK market, has failed to police the pricing policies of larger players. The FCS, he declares, is about to issue a challenge. "We are going to mount a campaign, OfTel is no deterrent. We want it to flex its muscles - if we don't act there'll be no independent SPs available to the customers," he says.

Mr Savage says that lifetime individual telephone numbers, which can be transferred between addresses and telecoms suppliers, are just around the corner. But this number portability is not necessarily in the interests of network providers, which would have to work harder to keep customers. Mr Savage is eager to ensure that an SP billing for airtime over different networks is not adversely affected by number portability. "This is an important commercial issue. You don't want to get a bunch of networks trying to protect themselves."

The SPs fear, he says, that the huge resources of telecoms giants mean hidden subsidies are unbalancing the market. The 40,000 employees working in the UK mobile telecoms sector are set to double over the next decade. But whether they will be working for outfits such as the 300-strong Astec or an offshoot of BT is open to debate.

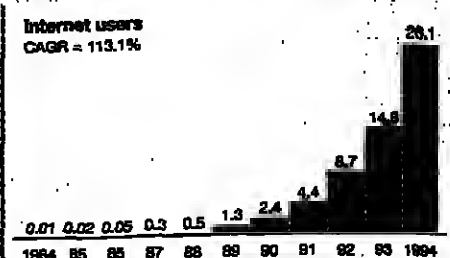
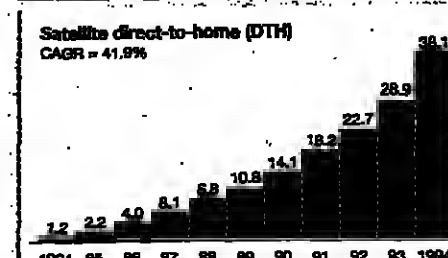
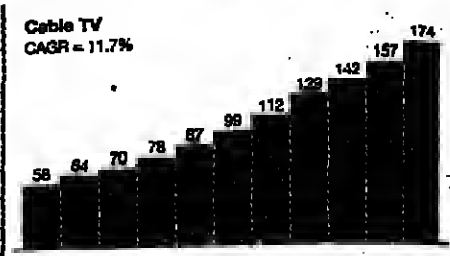
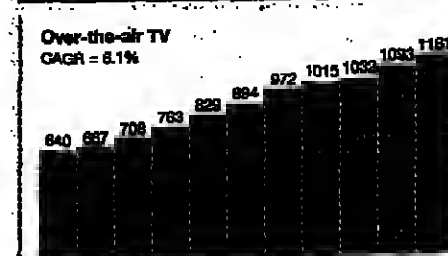
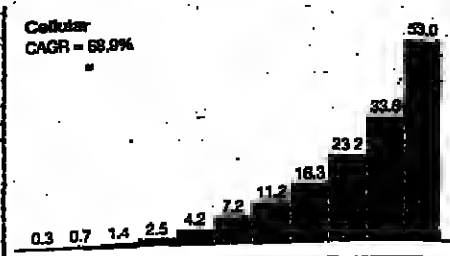
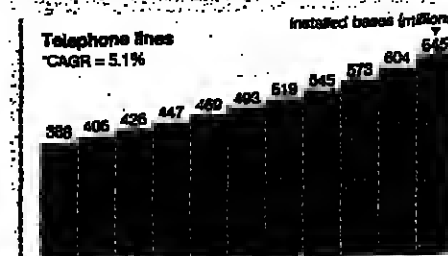
"The question we really have to ask of SPs is what is their long-term role. Do they add enough value? Are they really part of the telecoms sector or only a debt collection agency for big suppliers?" says Mr Roger Fye, a telecoms industry partner at management consultants ERMG.

Mr Fye fears that SPs are in for a rough ride to a world where large integrated telecoms companies co-operate in creating trans-border systems. Yorkshire-based Cellhire is one SP that is trying to avoid these looming traps. Formed in 1987 to deal entirely with short-term rentals of mobile phones, Cellhire may lack the volume traffic of other players but it is dedicated to a highly profitable sector. Most of its business is with commercial clients. Marketing manager, Mr David Gill, says business users tend to run up bills of around £200 a month. This is what he calls "a very good handset spend".

Cellhire has developed a survival strategy that looks beyond the UK. It has entered into a partnership with American Cellular Rental. European travellers can sign up with Cellhire to get a mobile phone when they arrive in the US, and vice versa. This arrangement reduces Cellhire's dependency on a difficult British market.

The top 10 SPs control 70 per cent of the £1.8bn UK mobile communications market. Seven of those prime players are linked to network operators. Independent firms can thrive, but they will have to be nimble and smart.

Worldwide communications market



■ Western Europe: by Richard Handford

Monopolies survive

The EC-backed drive to introduce greater competition has had mixed success

The award in October by the Irish government of a licence to the Eas Digifone consortium to compete in cellular services with the state-owned monopoly, Telecom Eircom, virtually brought to a close the European Commission-backed drive to introduce competition to every member state.

Over the past few months new operators have been licensed in Belgium and the Netherlands while newly licensed operators have just launched services in Italy and Spain. In the leading markets of France, Germany and the UK, competition has been established for several years.

Behind these developments is the EC's belief that pan-European competition, based around the common GSM digital cellular standard, will deliver lower prices and hence a higher take-up of cellular services among European consumers.

Liberalisation of mobile communications is well in advance of public, fixed telephony services, where - except in a few countries, including the UK - competition will not arrive until the start of 1996.

Scandinavia - where low prices for phones and services have led to high penetration - is often seen as the model for European cellular markets. Several factors are behind the Scandinavian phenomenon. In Sweden, for example, competition was introduced in 1992 by licensing two new rivals, Comviq and Nordictel (now known as Eurotel), to take on the mobile arm of the state-owned Swedish Telecom (now Telia Mobitel). Even then, however, penetration was around 7-8 per cent of the population.

Swedish Telecom was already offering affordable good service before the arrival of competition. This was partly the result of a close working relationship with Ericsson, the Swedish telecommunications manufacturer, which used its home market as a testbed for developing the cellular equipment that it has since sold all over the world.

There were also cultural factors behind Sweden's success. A wealthy, relatively small population clustered in the south of the country found cellular phones of great practical use when they were staying in their second summer homes in the north.

Moreover, Scandinavia - unlike other areas of Europe - was quick to take the introduction of common standards for mobile communications seriously. In the early 1990s, Scandinavian countries all built networks based on the common NMT-450 and NMT-900 standards that enabled customers to use their phones across the whole region. "Competition was not the single factor that led to high penetration and growth," as one civil servant working for Sweden's regulator, the National Post and Telecom Agency, observes.

Elsewhere in Europe, the argument appears simpler. For instance, the arrival of Mannesmann Mobilfunk, a consortium led by the German engineering group, Mannesmann, and the US cellular operator, AirTouch, transformed the German cellular market, previously under sole control of the state-owned DeTeMobil, part of Deutsche Telekom.

"Handsets became cheaper" and competition led to a lower rate but attracting revenue-generating business customers. Recent signs are that it has reduced its prices to compete more aggressively with Cellnet and Vodafone.

In France, competition seems to have failed. The country has one of the lowest penetrations to Europe in spite of the presence for a number of years of a competitor to France Telecom, the state-owned monopoly, Société Française de Radiotéléphone (SFR), a consortium that includes Vodafone and is led by Compagnie Générale des Eaux, has been partly hampered by the cost of the leasing lines from France Telecom.

Even so, it seems to have taken a pedestrian approach to attacking its rival - which also appears content with a slow-growing market.

The launch of a service next year by a third operator, Bouygues Telecom, led by the Bouygues construction group, could yet shake up the French market: it promises significantly cheaper prices than those currently available.

Italy is an inverse image of the French cellular market. The state-controlled, Telecom Italia Mobile (TIM) - which has one of the fastest-growing subscriber bases in Europe - was, until recently, allowed to run its cellular service as a monopoly.

TIM is the first European cellular operator to clock up more than 3m subscribers and has done so by offering a competitively priced service. Its drive to win customers was partly a response to the threat of competition from the Olivetti-led group Omnitel Proton Italia, which was licensed last year but only began its service this October. Also, TIM saw a huge, profitable market, and unlike France Telecom, set out to dominate it. TIM's success led to a spin-off this summer from its parent, Telecom Italia, into a separately quoted company.

If other western European countries emulate the penetration of cellular services in Scandinavia, subscriber numbers across Europe could reach 60m-70m, three times their current level. The factors behind future growth, however, will continue to vary in different European markets.


The majority of new subscribers to the dominant operators are consumers who have

through competition," says a consultant, Mr Mathias Pilca, of Pilca Market Research. "To reach the same level of penetration with just Deutsche Telekom would have taken much longer. Instead of 3m users we would now have maybe half a million."

A third German operator, E-Plus, however, has yet to make a significant impact on the market, fuelling the debate about whether more operators necessarily create more competition.

The UK is the only European country to have licensed four cellular operators. Superficially, the arrival in the market of Mercury One-2-One in 1993 and Orange in 1994 would seem to coincide with a leap in the number of subscribers. The UK has become the first European market to top 5m users, but neither One-2-One nor Orange seemed to have benefited greatly from the increased interest. Most of the growth has been soaked up by the two incumbent operators, Cellnet and Vodafone, which launched their services in the mid-1980s.

The majority of new subscribers to the dominant operators are consumers who have



When the judges weighed up the evidence, it seems the best place to buy a mobile phone is not from a warehouse.

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The EC parliament some member countries are poles apart in terms of telecoms liberalisation

■ The US: by Tony Jackson

The era of the 'flexible friends'

New legislation and a one-stop shopping approach could revolutionise companies

The US telecoms industry and the mobile communications industry within it are in a state of profound change. The cellular phone companies are having to face the prospect of regulatory reform and further technological innovation as well as uncertainties over the future direction of the market.

Since the US mobile phone industry is largely unregulated, the telecommunications bill making its painful way through Congress might seem of limited relevance. But the opposite is true. Under the new legislation, long distance and

local telephony - until now kept apart by regulation - will be brought closer together. The conclusion is obvious: the fight is on to be the sole supplier to the customer of long distance, local and mobile telephony in a single package.

Mr Edward Whitacre, chairman of SBC Communications - still better known as the local phone company South Western Bell - says his company's research suggests 70 per cent of residential customers will want to be supplied by a one-stop phone company. As he freely admits, however, the local phone companies have one disadvantage: they cannot offer a mobile phone service nationally as AT&T can.

One likely consequence will be mergers, if not of Baby Bells then at least of their mobile phone networks. This has

already happened between Nynex and Bell Atlantic, which between them cover most of the Atlantic seaboard. They also have a less formal alliance with AirTouch, the demerged cellular business of Pacific Telecom on the West Coast.

Mr Sam Ginn, chairman of AirTouch, says the alliance aims to launch services under a new national brand name by the end of the year. But there is a catch. Since it no longer counts as a Baby Bell, AirTouch already markets long-distance services in Los Angeles in combination with its cellular service, buying from AT&T and selling on at 10 per cent under AT&T's price. The aim is for Nynex and Bell Atlantic to offer a similar package, but they are not allowed to by law until the telecoms bill is passed.

Meanwhile, the arrival of mobile digital telephony and broad band personal communications service networks means US cellular capacity is about to explode. Some of the sums already invested in this are formidable. For instance, Sprint, the third highest US long-distance phone company, has already spent \$2.1bn with three cable TV partners on bidding for PCS licences in this year's government auction.

Some big players in the communications revolution have chosen not to get involved in this investment, on the assumption that industry overcapacity will make it possible to buy airtime cheaply for resale. One such is Time Warner, which from its starting point in cable TV, has ambitious plans for wireless telephony.

Another is MCI, the second biggest long-distance operator after AT&T. Mr Douglas Maine, chief financial officer, says the company can already command discounts of 25-40 per cent buying cellular for resale in a market that is supposedly short of capacity. In the next two or three years, he reckons, capacity will multiply at least 15 times. "There is going to be a glut," he says. "You can take that to the bank."

Naturally enough, this is a proposition the cellular operators deny. Granted, says Mr Ginn, his company is busy installing a new architecture that will increase its capacity by a factor of 10. One reason is that his analogue system risks being unable to cope with the present level of growth. Expanding the network, he

says, means incremental customers can be won very cheaply. Above all, if mobile telephony's penetration of the US market goes from 10 per cent to perhaps 40 per cent in the next five years, the customers will be there.

The question of market growth is slightly debatable. Even the present level of penetration is unclear. Mr Whitacre, for instance, puts it at closer to 15 per cent. There is general agreement that a figure of 40 per cent or more is achievable, but, as Mr Ginn says, the market will fundamentally change its character on the way there.

Already, he says, US demand for mobile telephony is moving from professional users to the consumer. "That leads to a period of confusion," he comments.

By contrast, he says, take Sweden - where market penetration is the world's highest at 22 per cent - or Germany. "The Swedes and the Germans have fundamentally been able

to penetrate their consumer markets much better than we have ours. We are working on it, but we have to learn how to do it through the right distribution channels."

Meanwhile, there is debate on the role of paging. AirTouch is convinced that its customers will want paging as an integral part of the new unified pack-

To hide their apprehension, the rivals of AT&T accuse it of being a dinosaur

age. MCI is proud of its success in recent months in building a paging business from scratch, once more buying capacity from elsewhere and selling it under its brand name. But SBC, for instance, sold its paging business in 1993. Bell

South, another Baby Bell, did the same in September.

The business is becoming concentrated in the hands of a few specialists: notably Paging Network of Texas, and Mobile Media of New Jersey, which bought both the Baby Bell properties. Paging is already established as a mass market product, with low and sensitive pricing points. The natural result is industry consolidation in pursuit of economies of scale.

In mobile telephony proper, the advantages of scale lie with the industry giant, AT&T, whose \$11.5bn purchase of McCaw last year made it the highest US cellular operator. Its rivals hide their apprehension by accusing AT&T of being, in effect, a dinosaur.

"Our research suggests," says an AirTouch executive, "that AT&T is seen by consumers as big, solid and dependable. We want to be seen as fast, friendly and flexible. We think that is an image more suited to the cellular market."

■ Eastern Europe: by Anthony Robinson

A land where money talks

New professionals increasingly covet mobile phones. But obstacles to market growth remain

The new business class of East and Central Europe is overwhelmingly young, ambitious and delighted to be making money, after decades when trying to become rich was a criminal offence. Being seen to be making money is even more delicious - and nothing is more ostentatious than doing a deal on a mobile phone, or even just faking it.

So mobile phones are a fast-selling commodity with great potential for future growth in a region where traditional telecommunications, although improving fast, still leave much to be desired. Growth is assured even though the national income statistics of the former communist world show that average wages are below \$300 a month in central Europe, and much lower further east.

What the figures hide is the fact that income differentials have widened enormously

since market reforms were introduced in 1990. Mobile telephones are as expensive in the east as they are in the west. But the cost is well within reach of the new professionals, often working for foreign companies and the new class of entrepreneurs. For them, the mobile telephone is a tool that keeps them in touch with clients and suppliers without having to rely on overloaded and outdated conventional telecommunications.

More than half a million subscribers now use mobile phones in the area of the former Soviet Union, and the potential for growth is substantial. The concentration of mobile telephone users in the four "fast track" reform states of central Europe - the Czech Republic, Hungary, Poland and Slovakia. But in each of two of the smallest states in the region - the former Yugoslav republic of Slovenia and the Baltic state of Estonia with well under 2m inhabitants - there are more than 20,000 subscribers. Pride of place, however, goes

to Hungary, which has only 10m people but boasts more than 200,000 mobile subscribers. This is partly because so much economic activity is concentrated on the capital Budapest, and partly because Hungary has the largest number of foreign companies and is the biggest recipient of foreign equity investment. More than 80 of the world's top 50 companies are active in Hungary, which has attracted nearly \$10bn in direct foreign investment over the past five years out of an East European total of around \$22bn.

Poland, whose 38.5m inhabitants make it more populous than the other central European states put together, and which is enjoying the fastest economic growth in the region, is the next biggest

market with more than 80,000 subscribers. By contrast Russia, the biggest and most populous country with more than 150m people, has fewer than 40,000 subscribers. They are concentrated mainly in Moscow and St Petersburg. This is only slightly ahead of the Czech Republic, which, by mid-1995, had a subscriber base of just over 35,000.

The Czech Republic has gained an enviable reputation for providing a transparent and competent environment for the modernisation of telecommunications in general, including mobile phones. This paid off earlier this year when the state received \$1.47bn from the sale of 37 per cent of the state telecommunications company, SPT, to a Dutch-Swiss consortium that was chosen from a raft of high-quality bidders.

The first Czech mobile telephone licence was granted to Eurotel, a joint venture between the SPT, Bell Atlantic and US West. It currently operates a lower-frequency NMT network but was promised that it would be offered one of two higher frequency

In Poland, changes of government have aborted agreements

ment over the past five years out of an East European total of around \$22bn. Poland, whose 38.5m inhabitants make it more populous than the other central European states put together, and which is enjoying the fastest economic growth in the region, is the next biggest



Prague pay-phones: the Czech modernisation record is enviable. Sarah Murray

GSM networks when available. This pledge has been honoured by the Czech government, which is currently assessing competitive bids for the second GSM channel. Among groups bidding for the licence are the Skoda engineering company, which has formed a joint venture, Skoda-

Mannesmann Mobile Com, with Germany's Mannesmann. A rival bid has been put in by another consortium comprising the Czech power utility CEZ, Germany's RWE Telecommunications and Airtouch Communications of the US.

The winning consortium will be allotted a 49 per cent stake

in the second mobile channel, with the biggest proportion of shares remaining in the hands of Ceske Radiokomunikace, a majority Czech state-owned transmission company.

It is a very different story in Poland, which has had six changes of government since 1989. In 1991 the government of the day accepted \$75m from the foreign partners of Centertel, the first mobile phone consortium, incorporating the Polish state telecommunications company, TPSA, Ameritech of the US and France Telecom.

At that time, the government was following the Czech model and the payment was meant to secure for Centertel one of the two GSM frequencies that would be available once they were relinquished by the military.

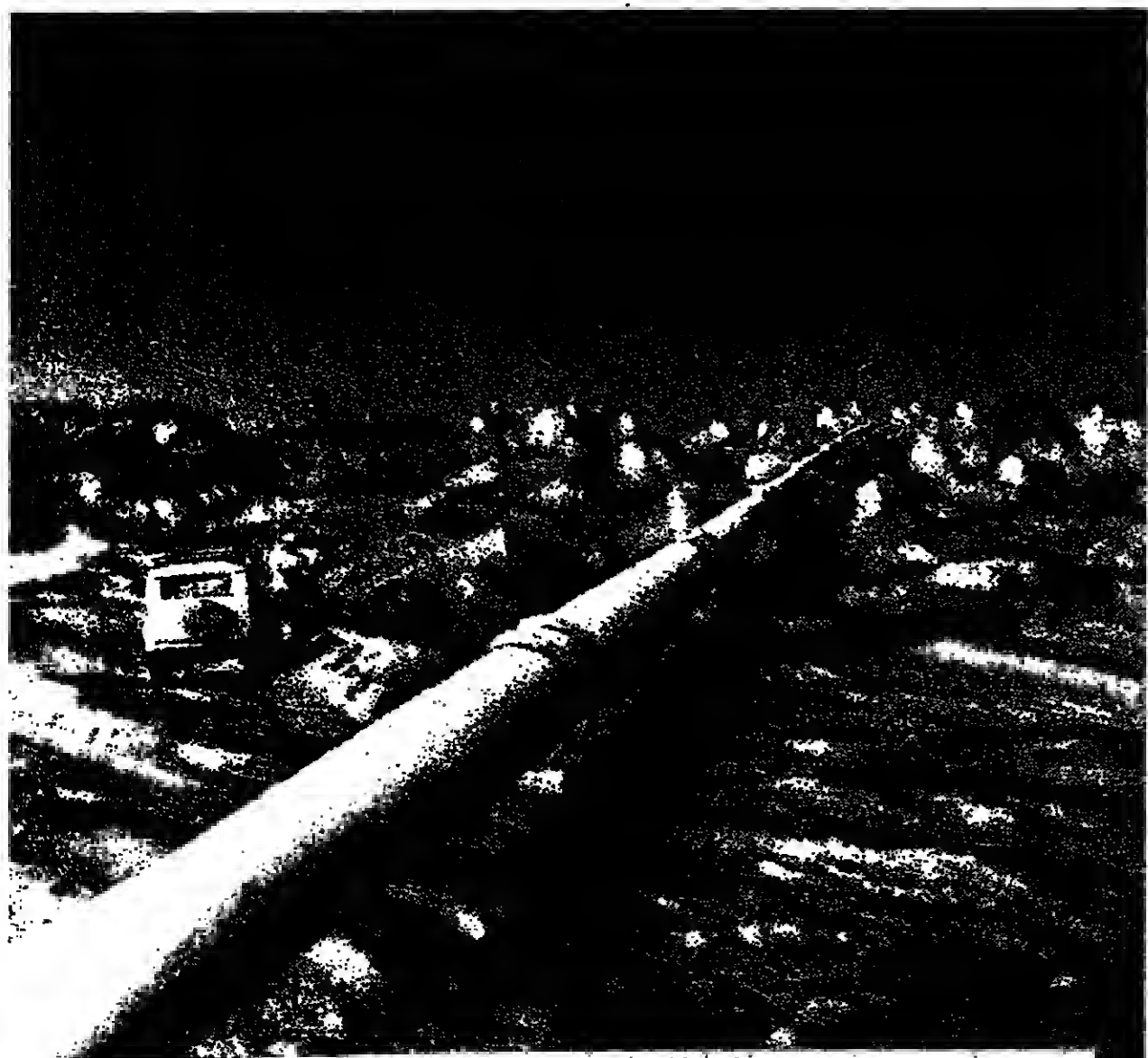
In August, however, the telecommunications ministry announced that both the mobile telephone operating licences would be on offer at between \$200 and \$400m each through competitive tender. This followed a change in the law that made competitive tendering compulsory, thus effectively negating the undertaking made by the earlier Polish government. The move caused great bitterness and Ameritech is threatening to take its

case to international arbitration under the protection of foreign investment agreement Poland signed with the US.

Centertel, with 80,000 subscribers, has been a very profitable company. But it will have no future once the two new high-frequency channels are running. TPSA held 51 per cent of the shares, but management control was in the hands of the foreign partner. Its attempt to seize control added to the bitterness felt by the foreign partners, which are effectively barred from bidding for one of the two new channels by their original agreement with TPSA.

The two GSM licences, expected to lead to investment of between \$1.5bn and \$2bn, will not be awarded until March 1996 at the earliest.

Some potential bidders have been alarmed by the attitude of the Polish authorities. Bell Atlantic International, which had been planning to take part in a bid for one of the licences, has decided to pull out. Others could follow. Polish companies that have announced interest in forming consortia with foreign partners include several of Poland's largest state and private companies such as Elektrim, the chemical group Czech, the Polish Power grid and Polish State railways.



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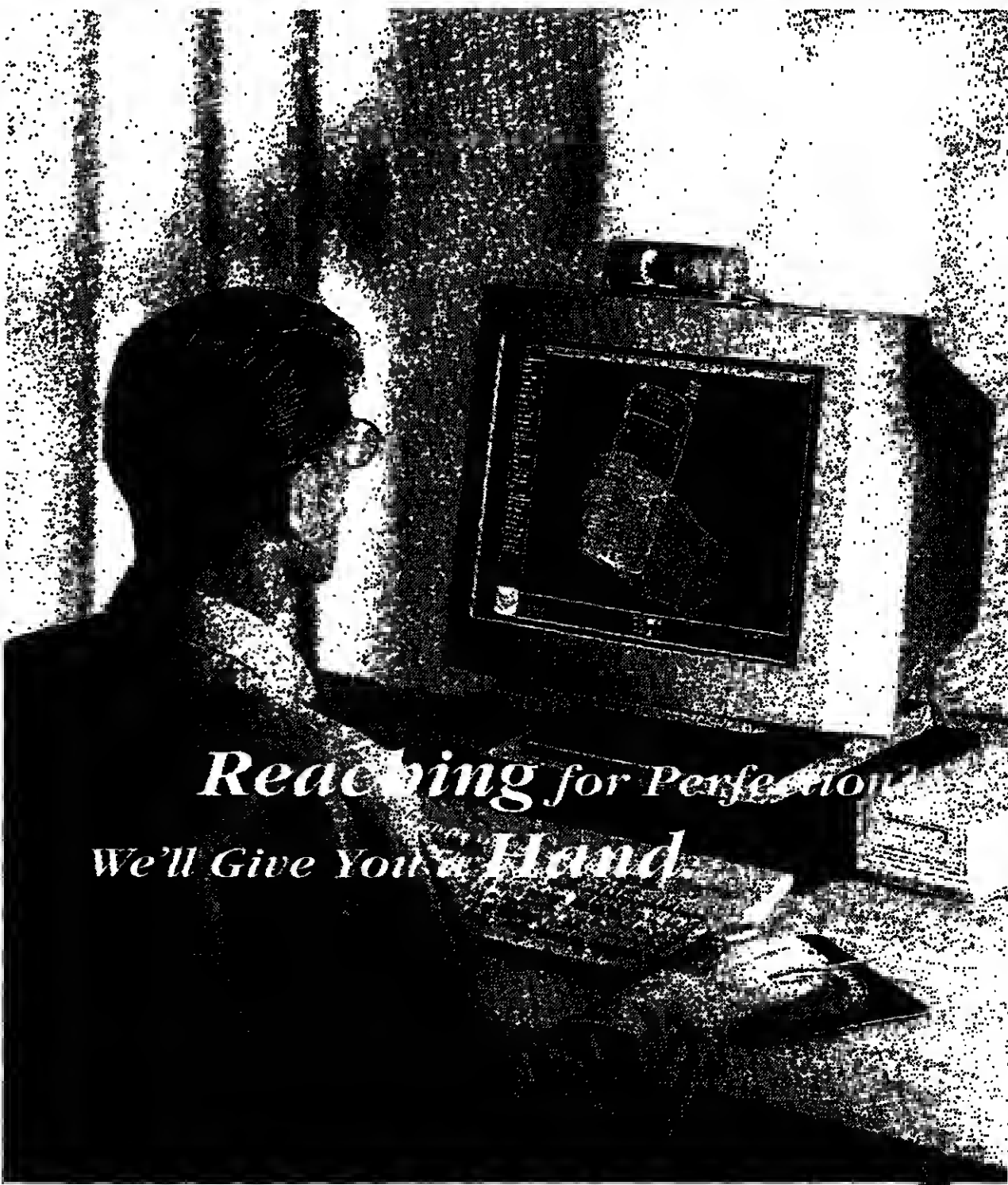
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4 MOBILE COMMUNICATIONS

■ Asia Pacific: by Jenny Walker

Tiger economies beat forecasts

The heterogeneous countries of Asia have one thing in common: huge cellular potential

This has been another milestone year for Asia's booming cellular markets with a rush of digital network launches and subscriber growth that has far outpaced forecasts.

China - which has been Asia's fastest-growing market for the past four years - is seeing 5,000 new cellular users every day and is now the world's fourth-largest market after the US, Japan and the UK. It is also one of only a handful of markets that will have doubled their cellular populations over the year.

What is truly surprising about Asian cellular markets is the number of countries that will have achieved exceptionally rapid growth this year. It includes developed economies such as Japan and Australia, as well as developing countries

such as the Philippines, Korea, Indonesia and Malaysia.

According to statistics from the International Telecommunications Union, Asian cellular markets are growing much more rapidly than their European and American counterparts. Last year, for instance, Asian markets grew at 85 per cent compared with Europe's 80 per cent and the Americas' 53 per cent.

Analysts say this trend will continue to at least the end of the century, when Asia's share of the global cellular market will have risen from less than a fifth to more than a third.

While the broader industry trends that are driving cellular growth worldwide are at work in Asia as well - such as falling handset prices, lower connection charges, greater competition and increased attention to marketing - analysts believe Asian markets have "special factors" that are likely to push growth far higher than might normally be expected, especially in countries with low levels of GDP.

Among these special factors and conditions are:

● a lack of fixed-line phones or the possibility of a very long wait for a line;

● rising wealth and a growing middle class with a propensity to spend as well as save;

● cultural differences that make Asians more ready to accept and adapt to new technology.

Another factor is the amount of competition that Asian regulators allow. This is causing the number of service providers to proliferate. Malaysia has seven cellular operators, while the Philippines and Japan both have five.

In Hong Kong, where there are already four operators and nine networks, using five different analogue and digital technologies, the regulator is considering allocating up to 14 new licences.

While it is difficult to be precise about what will happen to Asia's cellular markets, much will depend on the extent of the economic and industrial development of each country.

Analysts widely expect developing markets such as

India, China, Korea and Indonesia to show the steepest growth curves in terms of subscriber numbers, while the more mature markets of Hong Kong, Singapore and Japan will rely on the introduction of sophisticated new technologies to establish cellular as a mass consumer product.

This year, for instance, the Japanese market saw the commercial debut of the personal handyphone services (PHS). At charges of around one-fifth of cellular rates, the handyphone is expected to broaden the narrow base of the cellular phone in Japan from the business user to younger and lower-income groups.

Designed for use both in the home and on the street, its high capacity will accommodate data communication as well as voice, but it cannot be used in vehicles moving at speeds of over 50 km an hour.

Despite this drawback, some analysts predict as many as 12m PHS users by 2000 and that the technology could spread across Asia.

Two groups bidding for

licences in Hong Kong are said to be planning to use PHS in the colony and several other Asian countries including Australia, Indonesia, China, Vietnam, Korea and Malaysia are considering employing it in their own markets.

Meanwhile, in the domestic Japanese market - where until April 1994 mobile telephony had stagnated due to tight controls over the handset market and high service fees - the introduction of PHS this July was accompanied by a further explosion of interest in traditional cellular.

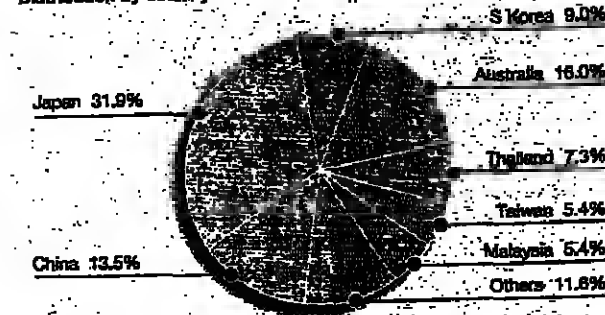
In little more than 18 months, the Japanese market has seen remarkable change. Cellular joining fees have fallen dramatically, by almost 80 per cent, monthly charges have been slashed in half, and airtime fees have slipped by roughly 20 per cent.

PHS is putting even further pressure on these rates.

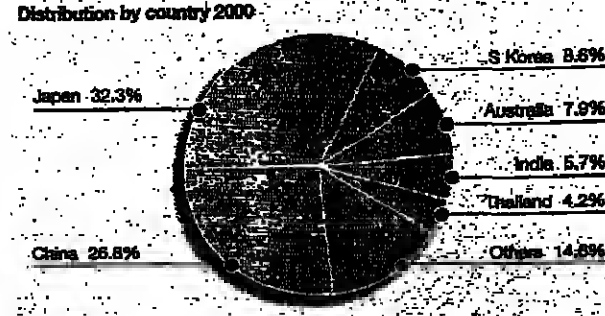
The future for the Chinese market - which analysts believe will be among Asia's brightest - hinges on how its cellular operators harness the

Asia Pacific cellular subscriber base

Distribution by country 1994



Distribution by country 2000



Source: BTG

potential of a vast and increasingly affluent population in a country notorious for its lack of fixed-line phones.

Few doubt that the Ministry of Posts and Telecommunications (MPT) will achieve its

aims of doubling or tripling the number of existing subscribers by 2000. The key question, however, is whether the newcomer United Telecommunications (Unitel) will be able to capture market share from the

MPT, which has held a monopoly in the sector from day one. For western cellular firms, Unitel is offering partnership deals in return for upfront investments and the promise of an entry into a potentially huge market. Although it has just a handful of subscribers, Unitel's ambition is to achieve a 30 per cent share of the Chinese market by 2000.

Such deals were formerly impossible in China, where central policy prohibits direct foreign investments in the operation of networks.

Unitel, however, intends to tap foreign capital and expertise in ways that navigate these strict rules.

Ameritech of the US and Telesystems International Wireless Corp (TIWC) of Canada have already teamed up with Unitel in the pursuit of its goals.

Unitel's potential, however, is still largely dependent on the outcome of its struggle with the MPT. With the latter still showing remarkable success in the cellular market, some analysts argue there is both little incentive for the regulatory and tariff reforms that would enable Unitel to compete on a level footing, and small hope of it achieving the scale of its ambitions.

■ Base stations: by Joia Shillingford

Small units' big leap

New wall-mounted cabinets are quelling some of environmentalists' concerns

"Mobile phone base stations and masts are sprouting on countless hillsides across our beautiful countryside, and towns are becoming blighted by unweildy new landmarks," says Mr Tony Burton, senior planner at the Council for the Protection of Rural England.

It appears that the telecoms industry is abusing the fact that normal planning controls do not apply to the siting of mobile phone base stations. The CPRE says that outside areas of special protection such as Conservation Areas, National Parks and Areas of Outstanding Natural Beauty, it is generally the case that masts less than 15 m in height do not require planning permission, although the local authority is notified of the proposal.

Nor is the policy tough on larger structures. The relevant national planning guidance (PPG8) implies that the technical constraints faced by the operators might justify a slight relaxation of established policies.

Operators are encouraged to share masts and sometimes do so. For example, some base stations are located on the broadcasting masts owned by BBC Masts and National Transco Masts. But there are no sanctions against operators that do not share.

Many CPRE branches receive complaints about mast

proposals, but only a few appeals are successful.

The masts must go somewhere: the question is whether the mobile communications industry is looking hard enough for environmentally sensitive sites.

A survey by the Association of District Councils reveals that:

● In the borough of Macclesfield, two masts were erected within 200m of each other when operators refused to share.

● North Wiltshire District Council refused an application for a 20m mast in the village of Ford in the Cotswolds Area of Outstanding Natural Beauty.

In some countries, the fears centre on health risks

Beatty, but lost the case on appeal.

● Castle Point Borough Council planners find it difficult to explain to local residents that they can do nothing about the towers ruining their neighbourhoods.

Although it is probably too late for these communities, the good news for areas like them is that smaller base stations are on the way. The UK cellular operator Vodafone says it is using mainly small cabinets for its digital services. These so-called micro digital cabinets (MDCs) are approximately 4ft high by 2ft wide. MDCs are usually located at the bottom of a mast and house the electronic circuitry needed for mobile communications. The

trend is for the circuitry to get smaller, too, so that each cabinet can provide coverage of a greater area.

Mr Jan-Eric Stjernvall, product manager for GSM base stations at Ericsson Radio Systems, says Ericsson has developed a base station - the MicroRBS - that can be placed on a wall.

The antenna is integrated in the front and it looks like a flat television. Mr Stjernvall says miniaturisation has been possible because of high demand for extra capacity. The greater the base stations in urban areas are in number, the smaller they are in size.

Ericsson's MicroRBS, which should become available in 1996, can regulate the level of power in users' handsets, keeping it as low as possible so that batteries last longer.

Finland's Nokia is also about to manufacture a base station that can be mounted on a wall or on an antenna pole (for use in the countryside). Called Prime Site, it measures 40cm by 60cm and is about 14cm thick.

Mr Jouko Paivinen, vice president for base station sales at Nokia, says: "Base stations used to be the size of a cupboard or several cupboards, and built inside a shelter that needed heating and alarm systems. In future, they can be installed on an inside or outside wall. In the countryside all the clutter that used to go with an antenna pole will be cut out."

Various kinds of camouflage are possible for existing base stations. "Companies in the US are developing artificial trees that hide the antenna. The mast is hidden inside the tree and the tree is placed in a copse of real trees," says Mr Peter Odell, electronics packaging manager at Vero Electronics, which makes housing for base-station circuitry.

Microcabinets or larger cabinets tend to be painted green or made to look like log cabins. In some countries, concern about the location of base stations extends beyond aesthetics to possible health risks from electromagnetic radiation.

There are no proven health risks from living or working near a base station. However, Mr Simon Best, editor of *Electromagnetics & VDU News*, a quarterly consumer publication, says he receives many calls from people worried about antennas on poles or on school or apartment buildings.

Vodafone, one of the four UK mobile phone operators, says its policy is to avoid putting masts on schools or hospitals because of the perceived risks. However, it believes the danger is negligible since its microstations always use power levels well within the safe limits.

In the US, San Francisco's school board has banned new mobile communications antennae from school roofs and will not be renewing leases for four existing cellular antennae. The board based its decision in part on the views of Dr Raymond Nembra of the California Department of Health Services.

In general, fears of possible links between cancer and quite low levels of exposure to electronic magnetic fields are growing.

Mr Odell, however, says: "I wouldn't be too worried if I had a digital base station on the roof so long as there was a reasonable amount of brick work in between [to attenuate the signal]. But I wouldn't live in a house under National Grid power lines, where the levels of radiation are much higher."

■ The move to digital: by Eden Zoller

Tomorrow, a world revolution

Although analogue networks are not dead, the future lies in systems such as GSM and DCS

The first analogue cellular mobile communications network was launched in Europe in 1981. The first digital cellular network, based on the pan-European GSM standard, was launched 11 years later in 1992.

Yet in the space of just three years there are now as many GSM networks in Western Europe alone as there are analogue networks, while the number of GSM subscribers already accounts for 35 per cent of Western Europe's 20m users.

The UK Research and consultancy firm, Dataquest, predicts that in the two years' time revenues from digital cellular services world-wide will have overtaken those generated by analogue equivalents.

So what is so special about digital cellular? Put in the very simplest terms, in analogue cellular transmission the voice signal is transmitted in a continuous wave, whereas in digital cellular communications it is transmitted in short, timed bursts. During the pauses in one conversation the bursts of another can be accommodated.

This means digital cellular technology has much greater capacity than its analogue counterparts. It offers faster call set-up times and greater voice clarity and uses encryption techniques to provide more secure communications.

Their greater capacity and spectrum efficiency make digital cellular technologies particularly attractive to governments in developing countries where populations are large but available frequency is in short supply.

Another big advantage of digital is that it supports a greater and more sophisticated range of value added services than analogue and is compatible with integrated synchronous digital networks (ISDN). For example, GSM networks can support a short messaging service of up to 160 characters to and from the mobile handsets. GSM can also accommodate a range of data services such as e-mail, facsimile transmission and access to on-line information services.

As markets mature, competition intensifies and the tariff prices tumble, value added services will be a weapon in the battle for new customers and help operators differentiate themselves from rivals.

The GSM is a pan-European standard that offers operators the additional added-value benefit of international roaming. GSM networks have now been deployed throughout Western Europe and are rapidly gaining ground in Eastern Europe and the former Soviet Union. They have also been installed in Australia, Hong Kong and India, and are being evaluated or adopted in most countries in the Asia Pacific region.

In China - a huge market of 1.2bn people - GSM is emerging as the preferred digital cellular technology.

In addition to roaming, an important aspect in the global deployment of GSM is the potential for manufacturing economies of scale that will bring down the price of network infrastructure.

GSM is just one of a number of digital cellular technologies. Closely associated with it, is the DCS 1800. This is based on the GSM standard but is primarily designed for high user density networks, and supports small, low-power 1 watt and 0.5 watt mobile phones that cannot be used in vehicles.

In Europe, DCS 1800 has been adopted as the standard for the personal communications networks (PCN), which in the UK are Mercury One-2-One and Orange. There will be tremendous growth in PCN DCS 1800 networks in the US by the end of 1996 at least 17 licences to operate such networks will have been awarded.

The US also has a variant of DCS 1800 called DCS 1900, the only real difference being a higher frequency. In general, digital cellular technology has been slower to take off in the US than Europe, mainly because of the profusion of analogue services that have a very high penetration. It is estimated that there will be a modest 4.85m digital cellular subscribers in America by the end of 1996.

GSM has only recently gained a small following in the US among the personal com-

munications services (PCS) operators licensed at the end of last year. PCS is the US equivalent of PCN, and as yet none of the US PCS operators has started commercial services. By far the dominant digital cellular standard in the US is the native Digital Advanced Mobile Phone Service (D-AMPS). D-AMPS has been developed from the analogue Amps cellular technology deployed in the US, which allows a clear migration path from analogue to digital amps.

Another important digital cellular technology that originates in the US is Code Division Multiple Access (CDMA). CDMA is often pitched as the rival to GSM, which uses a different digital transmission technology, Time Division Multiple Access (TDMA). CDMA promises to be a state-of-the-art digital cellular system giving improved quality voice communications and even greater

capacity than existing digital standards. However, it is an untried technology and equipment is not yet commercially available.

Digital Amps is rivaling GSM as one of the most popular digital cellular exports. D-AMPS has been installed in Canada, South America, the Asia Pacific region and the former Soviet Union.

CDMA, however, has not travelled very well, possibly because the technology is so immature, and so far South Korea is the only country to adopt it as its chosen digital cellular system.

In preference to GSM, D-AMPS and CDMA, Japan has developed its own digital system, Personal Digital Cellular (PDC). PDC has not been taken up outside Japan, despite the government's attempts to spread the word and persuade other countries in the region to adopt the standard.



East meets West: Shanghai, where European influence is extending to the adoption of GSM technology

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Data services by Paul Taylor

Specialists in search of a mass market

The advance of digital technology hugely increases the potential of mobile data

While cellular voice services have been a spectacular success in most markets, mobile data has failed to live up to early optimistic expectations and has generally been relegated to vertical niches such as vehicle fleet management.

"The slow growth of mobile data services has been a disappointment to industry providers, manufacturers and potential customers," says MTA-EMCI, the Washington-based telecommunications consultancy.

"Despite an increasing variety of mobile data equipment, multiple mobile communications networks and advances in applications development, the mobile data industry (in the US) served less than 1.2m customers by mid-1995," MTA-EMCI says in a recently published report.

As a result, most market analysts have downgraded their predictions for mobile data market growth in the 1990s while network operators and others have reassessed their investment strategies. Most analysts contend that the market for mobile data has been constrained by customer concern over a number of factors, including competition between mobile data services, the lack of standards, the price of equipment and complex and expensive applications.

This confusion is understandable. In the UK, for example, excluding pager traffic, mobile data services are available from both analogue and digital cellular telephone network operators, dedicated mobile data network operators and private and public access mobile radio networks - all using incompatible standards and equipment.

Nevertheless, most analysts still believe that mobile data has the potential to become a mass market on both sides of the Atlantic by the end of the decade.

In the US, MTA-EMCI believes that the mobile data subscriber base will grow to about 5.2m by the end of the 1990s, and that annual revenues will increase from \$273m this year to \$1.5bn.

MTA-EMCI believes that cellular and specialised mobile radio (SMR) carriers will capture the largest shares of the emerging US market, leaving other carriers, including dedicated mobile data-only services such as Motorola's Advanced Radio Information Service (Ardis) and Ram Mobile Data, "to carve out their niches in the market".

Over the US-based consultancy, predicts that the total number of subscribers in Europe and the US will climb to about 18.1m by the end of the century. In Europe, one of the key factors fuelling growth in the market is the success of the GSM digital cellular networks that have been built over the past few years.

Mobile data services are possible over analogue cellular networks such as the older networks in Europe and those in the US, but the pan-European GSM standard is much better suited to data. Despite these inherent advantages, it is only in the past year or so that GSM operators have begun promoting mobile data services, and some GSM operators, including those in France, have yet to implement them at all.

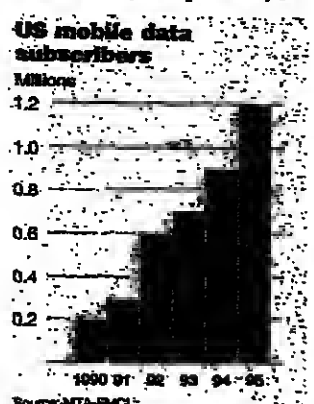
Where GSM networks do support data they enable subscribers to combine both voice and data applications using a suitable digital handset - for example, some models from Nokia, Motorola, Siemens and Mitsubishi - a handheld or notebook computer and a credit card-sized PCMCIA data card.

The attractions of accessing both voice and data services using the same handset give cellular networks, particularly digital networks, a distinct advantage for some users, despite generally higher costs. For example, Mr Graeme Arch, network consultant for Unisys's worldwide telecoms, has chosen a GSM solution for

the computer group's Europe-wide services teams in preference to dedicated mobile data, "because of its coverage and ease of use".

In the UK and in many other countries, two-way public access mobile radio provides another alternative for those seeking to mix voice and data. NB3 in the UK, which is owned by Geotek of the US and has around 52,000 voice-only subscribers, offers its customers unlimited access to its national voice and data network for \$20 a month.

In the US, where an increasing number of SMR operators have begun to offer data services, 96,000, or 5 per cent, out



of 1.8m SMR subscribers at the end of last year were using wireless data. Data customers use the networks most frequently for automated vehicle location, facsimile and scheduling.

Dedicated mobile data networks such as Ardis and Ram Mobile Data, which use SMR frequencies for their data-only networks, have managed to achieve widespread metropolitan coverage throughout the US, but, MTA-EMCI argues, "have suffered a competitive disadvantage by lack of voice services, a lack of equipment choices and limited distribution network".

Both networks have managed to expand their customer base. However, MTA-EMCI notes, "the two networks' sustained success depends upon the availability of shrink-wrapped, intuitive applications and the sales through indirect channels, such as computer and office supply stores".

For similar reasons, the dedicated mobile data networks in the UK, Ram Mobile Data, Cognito and Securicor Data-trak, have also placed particular emphasis on developing applications.

For example, Cognito, which claims to be the biggest data-only network with more than 6,000 subscribers including Olivetti, Electrolux and Rank Xerox, has recently launched an integrated automatic vehicle location and messaging system called AVLplus that works in conjunction with Global Positioning System satellites.

Similarly Ram, which uses Mobitex technology developed by Ericsson, the Swedish telecommunications equipment manufacturer, has recently won a contract to handle all mobile data and fleet tracking communication across the UK for IBM's Multi-Vendor Service Business.

In addition to these data services a number of other alternatives has emerged. In the US, which has yet to agree on a digital cellular standard, the limitations of analogue cellular data led IBM and a consortium of eight cellular carriers to develop Cellular Digital Packet Data technology that can be overlaid on existing analogue networks.

However, the future of CDPD is now uncertain due to limited deployment plans and nominal product introductions. By the middle of this year, CDPD services had only been deployed in 24 metropolitan markets and AirTouch Cellular suspended its CDPD plans earlier this year, citing lack of demand.

Meanwhile, several mobile satellite operators, including Qualcomm, already offer data services. Their ranks will be swollen over the next five years as a raft of new satellite operators - among them, Iridium - launch voice and data services. Overall, MTA-EMCI predicts that mobile satellite companies can expect to earn 23 per cent of the mobile data revenues by the end of the decade or about \$336m in the US.

However, growing competition for the limited number of mobile data customers could begin to force down prices. This, coupled with the arrival of second generation wireless communications-enabled portable digital assistants (PDAs), could finally ignite the mass mobile data market.

Paging: by Kris Szaniawski

Operators push low-cost advantage

Two-way services are adding to the attractions of cellular telephony's cheap alternative

Paging has long been the poor relation to mobile cellular telephony, but operators are now fighting back.

On the one hand, they are making a virtue of necessity and stressing paging's traditional benefit of cheapness, seeking to outdo mobile cellular operators in the consumer market with a cheap and cheerful product image.

On the other hand, they are seeking to offer business customers mobile data services that match those of cellular operators in sophistication.

The consumer market is being primarily addressed by calling-party-pays (CPP) services. Unlike traditional services, these usually carry no connection fee and no subscription or use charges. The only cost to the user is the price of a paging unit, which, in the UK, is usually under £100. The operators make a profit by charging premium rates to the callers who send messages to the pager.

The services are primarily aimed at teenagers or students who want to stay in touch without having to pay high monthly fees or call charges. They are the target for products such as Swatch wrist-watch pagers.

Since the first CPP service

was launched in Sweden two years ago by the state-owned operator Tella Mobitel, half a dozen European operators have launched CPP services and most are growing quickly.

A lively consumer market is developing in France, where two CPP services are vying with each other - the Taboo service run by France Telecom's paging arm, FTMR, and the Tam Tam service run by the rival operator, TDR. Pagers are available for as little as FF7500 (£77) and units are being launched all the time in a bid to attract fashion-conscious consumers. FTMR plans to launch a Motorola pager backed by the cult MTV cable television channel next year.

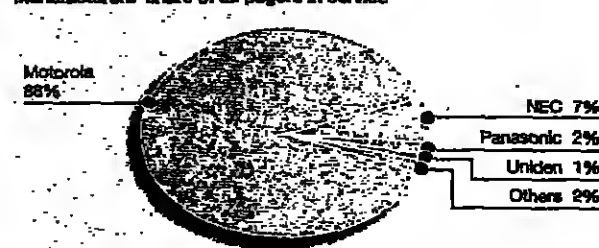
But change is not confined to the consumer market. Rapid progress has been made in advanced messaging. Today up to 10,000 numeric or alphanumeric characters can be sent - originally, the limit was 160. Pagers can be hooked up to laptop computers, faxes, electronic mail, news and business information services and the Internet.

There is an increasing trend worldwide to use paging networks to broadcast business and private information that needs immediate attention, says Mr Jacques Convas, chairman of the European Public Paging Association (EPPA).

Pagers not only match the capabilities of GSM digital cellular networks in supporting mobile data services but also - because they use frequencies more efficiently than GSM -

US pager market

Manufacturers' share of all pagers in service



Source: EPPA

have less vulnerability to congestion problems. Mobile cellular operators in general - and GSM operators in particular - are increasingly making available short-messaging services along with other data applications. "More competition with cellular operators could be to paging's advantage," says Mr Luca Tassan of the consultants MTA-EMCI. "If data services are marketed as data services in themselves and not as merely a supplement to voice services then this could well stimulate the paging market."

The European Public Paging Association is currently lobbying national and international regulators to obtain the necessary frequencies for advanced paging services and roaming.

Traditionally, you could only use a pager within one country. With the liberalisation of telecoms markets and the emergence of international standards such as Erms (European Radio Messaging System) international roaming

is being made easier. In October, the Swiss PTT Telecom and the French paging operator, TDR, announced the world's first roaming agreement between two paging networks based on the Erms standard.

Five European paging operators already offer a "Euromessage" roaming service between the UK, Italy, France, Switzerland and Germany on pagers based on the traditional Pocsag standard.

Erms is being actively promoted by the European Commission as a pan-European standard and has been adopted by the International Telecommunications Union (ITU) as the recommended paging standard for international use.

The adoption of a common international standard would also lead to economies of scale in production and so result in lower user prices.

Five commercial Erms services have been launched this year - Infomobile, TDR and France Telecom in France and Eurohivo and EasyCall in Hungary. A number of other European operators are preparing to introduce Erms services over the next six months in Belgium, Cyprus, Denmark, Finland, Sweden and Switzerland.

Earlier this year, the Erms Manufacturer's Marketing Association (Emma) was formed to promote the standard outside Europe. Interest appears to be strong. The Saudi Arabian PTT is preparing to launch before the end of the year what will be the world's largest Erms system - with the capacity for 772,000 subscribers. Activity is also likely in Kuwait and Bahrain, and the Malaysian operator Celcom is planning the introduction of an Erms service before the end of the year.

Two-way paging - which allows subscribers to acknowledge receipt of a paging message or choose one of a number



Students: a target for services such as the Swatch pager

of aet return messages - is another big new development in paging. The US-based paging company, Mobile Telecommunications Technologies Corporation (Mtel), launched the first two-way paging service in September - a national service called SkyTel 2-Way. Other US operators have announced similar plans. Last year's auction of radio frequencies for narrowband Personal Communications Services (PCS) attracted considerable interest from companies eager to explore new value-added paging opportunities.

In Europe, developments are at a less advanced stage - the Erms Memorandum of Understanding (MoU) steering committee has just formed a working group to consider the potential of two-way paging services, but real development is still some way off.

The market potential in Europe is enormous. If paging operators can find a way to unlock it, there are now around 4m paging subscribers

in Europe but the paging penetration is still only just over 1 per cent. By comparison, the US has a penetration rate of around 8 per cent and in Asia it is as high as 15 to 25 per cent.

The US paging industry added over 7m subscribers last year and is expected to continue to experience high growth rates in the future. MTA-EMCI predicts that by the end of the century more than 50m pagers will be in use in the US, the majority of which will be for consumer purposes.

The Asia-Pacific region is similarly fertile ground. MTA-EMCI forecasts that the number of subscribers there will more than triple to 10m by the end of the decade. The Chinese paging market alone has doubled annually since 1992 and is still going strong, with 20m subscribers expected by the end of this year.

In the Asian market paging has proved to be very popular as a cheap alternative to mobile cellular services.

Fighting fraud: by Paul Taylor

Crime crackdown

Fraud management software can help reduce abuses. But it may never eliminate them

A new epidemic is sweeping across the globe - mobile phone fraud. According to most estimates, mobile phone fraud already costs the industry between 5 and 15 per cent of revenues and is growing. In the UK alone where there are now 4.5m cellular subscribers, mobile phone fraud will cost the four network operators about £100m this year, up from just £34m in 1994. The bulk of

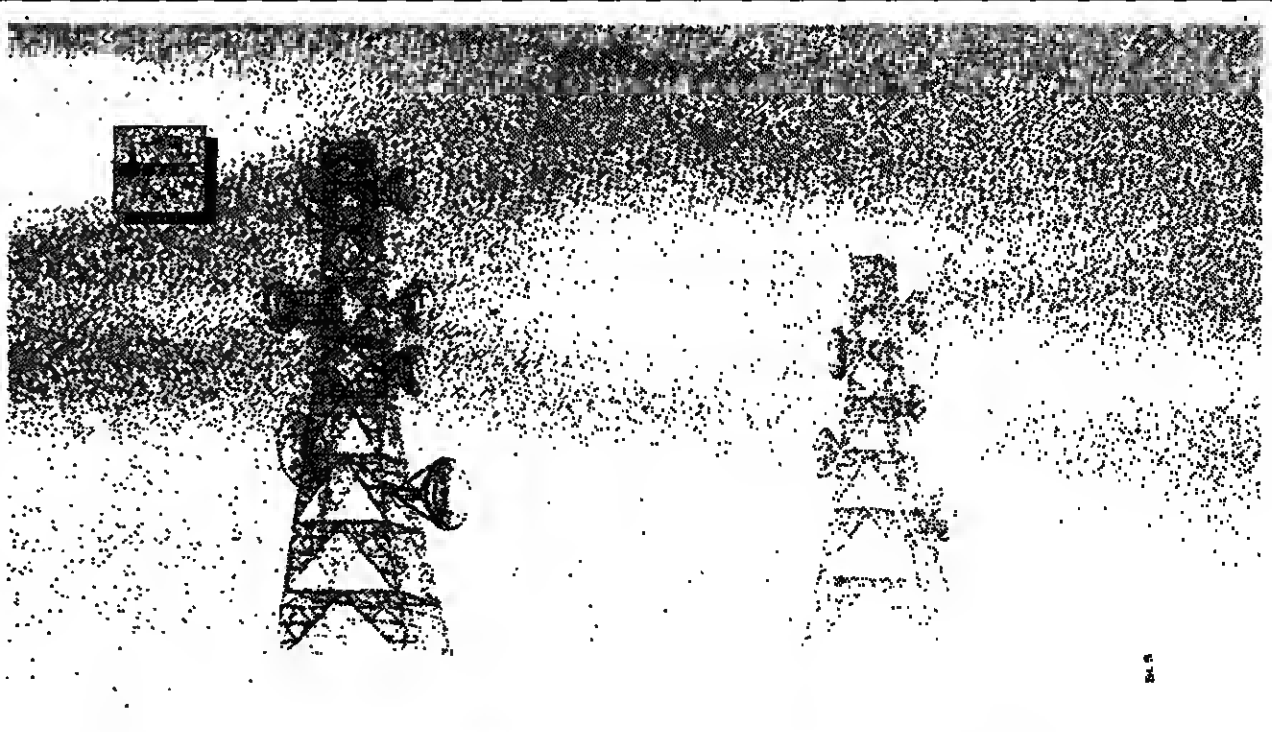
stolen phones. Despite this, under the British Telecommunications Act, which was drafted before cellular communications took off, neither cloning nor reprogramming a phone with a new identity (re-chipping) is a criminal act. (In the US, it has been a federal offence for more than a year, and some states outlawed it even earlier.)

Things, however, may be about to change. Last month, after a joint industry and government study, group suggested the possession of cloned phones and equipment should be an offence, Mr Ian Taylor, Britain's science and technology minister, said the government would consider changes to the law. Meanwhile, the industry is also beginning to police itself more effectively by setting up teams of investigators to probe the activities of the large number of dealers and service providers and a highly active "second-hand" phone market.

Nevertheless, most industry analysts acknowledge that the battle against the fraudsters is a long way from being won and that further action is needed. One of the most promising recent developments has been the addition of extra electronic codes into radio messages to make cloning more difficult. In the UK, Vodafone is introducing a new subscribers system that changes the character of the code every time a call is made. Vodafone's new Authentication software adds a third number to the string transmitted by the phone before the call is connected. Unlike the other two numbers, this third number, called a Quasi-ESN, will be re-computed each time the phone is used - making it useless if it is intercepted. Subscribers have to enter a 16-digit code sent to them by Vodafone to activate the Authentication software.

Most analogue cellular network operators also use sophisticated network monitoring software to identify clones and other forms of misuse. Aside from detecting when two apparently identical phones are in use, this type of software also watches for various forms of "unusual activity".

"Most fraud generates some sort of unusual behaviour," says Mr John Coleman of Logica, the UK-based computer services group that has developed a number of applications for cellular network operators. Fraud management software, which is based on noticing exceptions to rules, will spot if two calls are made from opposite ends of the country within half an hour of each other. Since fraudsters have proved adept at circumventing controls, Mr Coleman stresses that the software must be flexible and allow rules to be changed easily. "It is an area of strong investment on behalf of the operators," he says, "the fight



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6 MOBILE COMMUNICATIONS

PROFILE Finnish cellular manufacturer, Nokia

Success story hits critical point

Nokia of Finland has ridden the mobile phone revolution as spectacularly as any of the world's telecommunications companies, raising its international profile to an extent unimaginable three years ago.

By far the biggest company on the Helsinki bourse - with a market share approaching 40 per cent - it briefly became the Nordic region's biggest group by market capitalisation earlier this year.

Nokia is best known as the world's second-biggest maker of mobile handsets after Motorola of the US. According to one estimate, it will make around 10m phones in 1996, almost double last year's level. Its global market share is "clearly above 20 per cent", according to Mr Jorma Ollila, its chief executive.

The group has a much smaller position in the mobile infrastructure market, trailing Sweden's Ericsson and AT&T of the US for example, but its market share is growing because of its strength in new systems, such as DCS 1800.

Luck and judgment have helped get the group where it is today. The luck element was that the Nordic countries

were the first in the world to set up a common mobile phone standard, the NMT, back in the early 1980s. This kick-started the interest in mobile phone technology that has put both Nokia and Ericsson at the forefront of the business ever since, while assisting the penetration of mobile phones throughout the Nordic region.

Sweden, Finland and Norway lead the world in terms of mobile phones per head of population.

The element of judgment has been Mr Ollila's strategy of turning the group from a sprawling conglomerate into a tightly focused telecommunications group. The result is that a company once better known for producing lavatory paper and rubber goods is today unambiguously known for its telecom activities.

In 1994, Nokia made a FM4bn profit, up 250 per cent from a year earlier and a record for a Finnish company.

The first eight months of this year continued to show the group's strengths - profits up 58 per cent at FM3.62bn; sales up 55 per cent at FM22.9bn. The performance

was underpinned by the mobile phone division, where sales rose 59 per cent to FM9.57bn, and by the telecommunications division - which makes infrastructure for fixed and mobile systems - where sales climbed 51 per cent to FM6.35bn.

These results, although good, were not good enough for a market hungry for pleasant surprises. There were clear signs of slower growth in the mobile division in the next four months and the disappointment, felt most keenly by US investors, triggered selling in Nokia's shares, which fell around 25 per cent in the weeks after the figures were announced. Set against the 30-fold rise in the group's shares (adjusting for splits) over the past three years, a correction at some stage was inevitable.

The immediate cause for concern is the US, where Nokia, like Motorola, has discerned a slower pace of market growth and increased price pressures. "US growth will continue but most likely not at the same rate we have seen over the last few years," says Mr Ollila.

The US handset market accounts for an estimated one in four of Nokia's sales and around 12 to 13 per cent of group sales. Mr Ollila notes that the US is dominated by analogue phone technology while Nokia's strength is its faster-growing and higher-margin digital business. The shift towards digital in Asia and Europe means Nokia's global digital sales will soon surpass its analogue business.

Most analysts say Nokia's US problems have been over-estimated. "This is a quality company with a growing market," says Mr Peter Roe, telecoms analyst at Paribas Capital Markets in London.

But competition is almost certainly going to get tougher as groups such as Siemens of Germany and Alcatel of France step up their mobile phones drive. There are also new standards to cater for, such as the CDMA digital operating system, which has taken a healthy slice of the US personal communications services market.

It is, however, possible to over-estimate the competition. There are few signs yet of

potential rivals delivering the sort of volumes that could threaten Nokia. And the business is altogether more sophisticated than is sometimes suggested.

"The idea that a mobile phone is like a Sony Walkman is a myth. The software content is crucial," says Mr Richard Kramer, telecoms analyst with Kleinwort Benson in London.

Question marks remain over Nokia's consumer electronics unit. This business caused the group significant losses earlier in the decade and it again ran into problems in the first eight months because of lower European television sales. But in a significant change of strategy, the group has indicated it no longer intends to sell or wind down the business, preferring instead to see it as a core part of its investment in multimedia. This is a gamble, but it may well give the group a head start in exploiting the convergence of voice, image and data technologies in the years ahead.

Christopher Brown-Humes

Global satellite services: by George Black

Developers reach for the stars

Can the equipment needed to receive satellite signals really be squeezed into a handset?

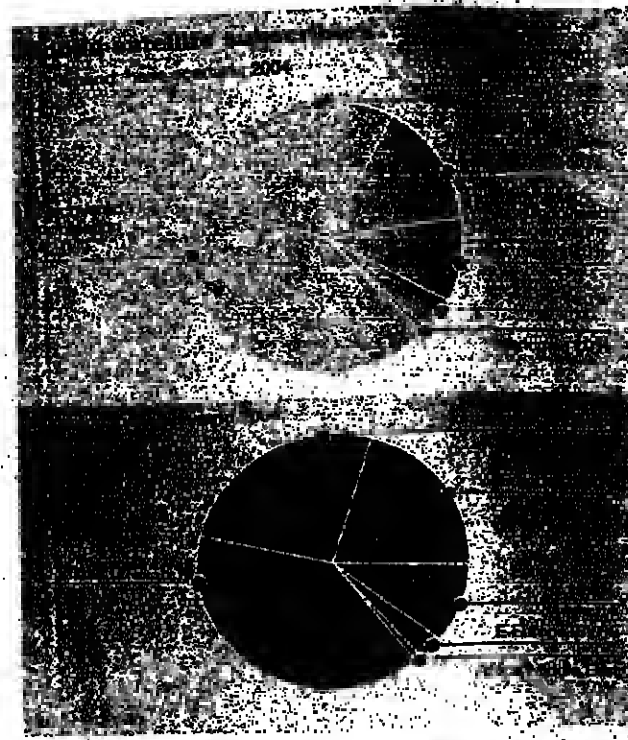
Leading telecommunications companies worldwide are racing to develop hand-held satellite telephone services.

Briefcase-sized phones that weigh about 9kg and operate via satellite are already in use but they form a specialist and still rather expensive market.

Within a few years, however, as the technology is refined, prices fall and the commercial and regulatory framework is established, the market for them could be huge.

Satellite phone systems are being developed to overcome the limitations of analogue and digital cellular mobile phone services. The geographical reach of cellular phones is currently limited: calls to distances beyond the local area must be connected through earth stations to satellites.

The promoters of satellite phones argue that these new services will not compete with



their digital cellular contemporaries. They will be aimed, they say, mainly at users in less densely populated areas and in places where cellular services do not exist. They point to very low projected penetration rates for cellular phones in the potential world telecommunications market.

Future satellite phones are expected to be able to switch automatically between the earth network and the satellite network as users move in and out of areas covered by cellular systems.

There are considerable technological, commercial and political obstacles still to be overcome. Developers are struggling to make the phones small enough and light enough to be acceptable to users. The objective is to squeeze the apparatus of an earth station capable of sending and receiving satellite signals - the size of a truck a few years ago - into a gadget no bigger than a cellular phone.

The satellites themselves also have to be developed and launched and there are differences of opinion about whether existing geostationary orbits or the new alternative low-earth or medium-earth orbits will provide the best balance between cost and power.

In addition, there are huge challenges in setting up the technical and commercial arrangements between telecommunications operators worldwide, says Mr Pat McDougal, vice president of business development and external relations for Inmarsat, the international mobile communications organisation.

Prices are falling fast. Handsets that cost £12,000 18 months ago now fetch £5,000 and by 2000 could be bought for as little as £1,500. Calls can now be made as much as £2 a minute but this could drop to £1 as tariff levels are simplified.

Deregulation of telecommunications internationally is needed to create more confidence in the market and help speed up technological development. Governments currently are trying to make rules in a market that looks very hard to regulate effectively and which most participants think would be better left to itself.

Many governments have yet to be persuaded to see the market as global and to commit themselves to policies of openness rather than continuing to try to protect what they see as national interests.

But the industry is optimistic. "Country by country, restrictions are being broken down as governments realise the benefits of communications for trade and tourism," says Mr Bob Chever, UK marketing director for Nera, a Norwegian supplier of Inmarsat equipment and services.

Mr Chever notes that the Gulf War in 1990-91 did much to spread awareness of the importance and capability of global communications systems.

There are also issues of spectrum availability; Inmarsat is pressing for its allocation of spectrum to be brought forward from 2005 to 2000.

It has a head start in this market, but faces competition from several other projects, notably Iridium, Globalstar

and Odyssey. It is preparing to launch satellites that will allow the use of smaller and lighter terminals.

Earlier this year, it set up a new UK-based company, Ico Global Communications, in which it is the principal sponsor and a leading shareholder. Ico is intended to bring phone services via 12 satellites and 12 regional switching stations to the market by the end of the decade.

It has raised \$1.5bn, but will need the same amount again to see the project through. Mr McDougal says he is confident that the organisation will be able to raise the rest of the money from existing and new partners.

Inmarsat has signed up Hughes Electronics Corporation as an investor; Hughes will make and launch its satellites and design the earth stations. Nokia of Finland, Ericsson of Sweden and NEC of Japan hope to supply handsets.

Governments have yet to see the market as international

Mr McDougal says none of the barriers is likely to delay the launch of services beyond 2000. "It is a realistic prospect, but one that requires a lot of work to be done," he adds.

Three of Inmarsat's main challengers are based in the US. Iridium is a consortium led by the telecommunications company, Motorola, which plans to start the launch of a ring of 73 satellites in 1997.

Globalstar is a rival led by Loral, a leading US defence electronics company; Odyssey is an initiative by a group that includes TRW, the US aerospace company.

They are competing not only to develop the technology but, more importantly, also to raise the money needed to support their efforts. Experts question whether they can all succeed; they have together raised around \$5bn, but will need to more than double that amount to fulfil their prospects.

There will also be strong competition from several regional satellite companies using the geostationary orbit of existing satellites, rather than the planned new orbits of the global services.

The satellite owners may decide to subcontract that part of the business to existing mobile phone network operators.

It seems unlikely that these will ever become mass consumer services in the industrialised countries, but they could be the standard form of communication for rural communities in many parts of the world.

In industrial societies they will attract buyers among business travellers, commercial vehicle drivers, transport companies and emergency services operators.

The developers are convinced that these market sectors will be sufficient to make a profitable business. However, not all of them may survive, at least in current form. There could well be mergers, acquisitions and withdrawals between now and 2000.

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2 BIOTECHNOLOGY

Venture capital: by Lucy Clarke

Investors become more cautious

Risk takers are looking for a surer payback and a bigger say in development work

The relationship between venture capitalists and biotechnology is changing. Strung by costly product failures and trapped in investments in companies that are still years from a marketable product and revenue stream, many investors are steering clear of the sector.

In the UK, only about 25 venture capitalists specialise in biotechnology financing and they are dominated by a few companies. Rothschild through Biotechnology Investments and International Biotechnology Trust, 31, Abingworth Ventures, Apex Partners and Schroders.

In the larger US market, 336 venture capital companies are dedicated to biotechnology, according to KPMG Peat Marwick. European investors, such as Atlas Ventures in the Netherlands and Sofinova of France, are also dabbling in the sector.

Nowadays, venture capitalists have a far clearer idea of what they want from their investments. In contrast with the dizzy mood of the 1980s, early-stage companies are now almost universally shunned by these investors.

"They want clinical data, potential revenues and cash flow," says Robert Espoito, partner and national director of life sciences at KPMG. Venture capitalists have not lost interest in the sector, he contends, but they want to become involved later in the development process, when the company will attract a higher valuation and public investors can be brought in.

The lessons of the past have been learned following headline-making product disappointments such as treatments

for sepsis - Centocor's Centoxin and Synergen's Antril - and the premature company flotations of 1990-1992. Investors also realise that the fully integrated biotechnology companies, such as the US giants Amgen and Genentech, which have seen rapid product development and hefty profits, are models that cannot be duplicated.

The technology to be mastered by the new generation of companies is becoming more sophisticated and the targets of their research - such as cancer, AIDS and Alzheimer's - more complicated. "Their technologies are not 'me-too's', but more complex than traditional pharmaceutical research and development. They are real novel breakthrough areas which involve more trial and error and very, very long R&D phases and clinical trials," Mr Espoito comments.

Biotechnology absorbs a lot of money and the venture capitalist must discover how to

contain costs while nursing products through development. As such, biotechnology companies are increasingly viewed as research and development boutiques rather than fully fledged companies.

Without a revenue stream, it is too expensive to try and create an integrated operation, so the "virtual" company model is becoming increasingly prevalent, with outsourcing of R&D, clinical trials and regulatory work. "Venture capitalists are pushing for a smaller infrastructure and trying to run companies down to the bare bones because they can no longer rely on the public equity markets to provide further funding," Mr Espoito says.

Venture capitalists are also trying to anticipate the future fate of their investment. For example, they favour companies that can be merged or allied with a pharmaceutical major or another biotechnology entity, or which has technology that can be spun off to

a third party. This softens the overall risk and reduces infrastructure investment.

On the other hand, says Robert Lucas, director of biotechnology investments at 3i in the UK, they also realise that they must remain locked into their deals for longer. He estimates that investing in a biotechnology company means an average commitment of seven years, comprising the initial investment and three subsequent rounds of funding.

3i has built up a portfolio of biotechnology investments over 15 years. The secret is to keep up "steady investment in the best investment opportunities", Mr Lucas maintains. Moreover, the company values people above technology because "you need a good management team with the ability to exploit opportunities and take the pressure off 3i".

Jeremy Carnock Cook, a director at Rothschild Asset Management in the UK, agrees. "The most important assessment, especially in early-stage investments, is of the individuals involved. Good teams will be resourceful if the first product fails, while a poor team can destroy good science through mismanagement."

It is a view echoed inside the industry by Paul Haycock, chief executive of Canlab Pharmaceuticals. "Management must be of a calibre to attract venture capitalists and inspire confidence. While bright ideas and a well-thought-out business plan will work if you haven't got the right people."

The mega-mergers in the pharmaceutical sector help to supply those people. Many key management figures are switching from mainstream drug companies to the biotechnology sector. They include Rolf Stahl, formerly director of marketing at Wellcome, who became chief executive officer of Shire Pharmaceuticals, Martin Preuveneers, who joined Therazys as CEO from Glaxo

Wellcome; and Keith Adams, who left Hoechst to become financial director of Biocompatibles.

British Biotech, which was the first UK biotechnology company to float successfully on the London stock exchange in 1992, was also set up by defectors from the pharmaceutical mainstream. Both Keith McCullagh, chief executive, and co-founder Brian Richards came from Searle. Although they had no products, technol-

ogy or patents, their track-record and industry clout was able to attract four venture capitalists with £2.5m when they started up in 1986.

The sector should benefit from the stock exchange's greater accessibility for young companies

ogy or patents, their track-record and industry clout was able to attract four venture capitalists with £2.5m when they started up in 1986.

British Biotech's success was down to its business plan, which included the likely timing of the flotation, says Dr McCullagh. "As long as a flotation is planned, then venture capitalists are willing to invest because it means they can bypass additional investments in the company."

One exception to the trend of investing in later-stage biotechnology projects is the UK venture capital company, Prelude Technology Investments. Based in Cambridge, it exclusively backs start-up companies because it believes value can be added to seed companies at an early stage.

For a relatively small amount of money, a large equity position can be secured. Prelude can then help bring together management teams,

At a later stage, the bigger investors, such as Biotechnology Investments, International Biotechnology Trust and 3i, can be brought in, says Andrew Allers, a director at Prelude.

Proof of Prelude's vision is its investment three years ago in Peptide Therapeutics, the UK biotechnology company which has announced its intention to float on the London Stock Exchange before the end of this year. "PT was worth the risk because it had identified two large therapeutic areas - allergies, including the growing markets of hayfever and asthma, and rheumatoid arthritis," Mr Allers comments. It also had an experienced entrepreneur, Alan Goodman, now chief executive of PT, leading the project.

With other projects, Prelude looks to mitigate the risk by diversifying into drug delivery and medical devices, which can be brought to market in only five to seven years.

Mr Allers says that Prelude will continue to pursue its strategy of seed financing. Although the cash returns have not come through, soaring valuations can bring in fresh investors. The carrying value of the fund has increased two-fold to \$12.5m since it was launched five years ago.

Mr Allers is optimistic on the future of the venture capitalists' relationship with the biotechnology industry. Financial markets are increasingly amenable to the sector, he says. In the UK alone, the London stock exchange is more accessible to young companies under its Chapter 11 rules, and the Alternative Investment Market was launched earlier this year. The planned European Exchange system, modelled on the US Nasdaq, will buy the sector further, giving biotechnology companies more than one option for selling off stakes and raising capital.

Lucy Clarke is editor of FT Biotechnology Business News

Diagnostics: by Motoko Rich

Search for early symptoms

Prediction and prevention of potential sickness is a growing focus of medical research

The term biotechnology usually conjures up images of white-coated scientists buried deep within cluttered labs, hovering over test tubes and microscopes to find a cure for cancer.

While many of the largest and most successful companies are developing new drugs, an increasing number of businesses are entering the diagnostics field, where science is used to discover what - rather than how - to cure.

In the diagnostics field, biotechnology also ventures outside the medical field altogether, as an emerging sub-sector of the industry develops systems to detect microbial contamination in manufacturing environments and consumer products.

For investors, diagnostics is a relatively unexplored field. Less than 10 per cent of all investment in UK and US biotechnology companies is in diagnostics groups. "It is a bit of a side line," says Mr Robin Gilbert, analyst at Panmure Gordon. "When you are trying to detect a disease and you make a small improvement in the test it does not have the same impact as a small improvement in a medicine."

"I think the drug side of the industry tends to be more glamorous," admits Mr David Shaw, founder, chairman and chief executive officer of Iddex, the US veterinary and environmental diagnostics company.

However, some investors who are wary about risking their investment on something as risky as drug discovery may be more prepared to invest in diagnostics, which can provide a more stable track record.

"In biopharmaceutical com-

panies, one or two products can make or break the company," says Mr Shaw. "They are attempting to hit a home-run with a drug. But in the diagnostics business, there are not too many home-runs to hit," he says, comparing biotech to baseball.

Diagnostics companies are less dependent on blockbusters and more adept at developing core technologies and large product portfolios. Iddex, for example, has more than 100 products for sale.

According to Celis, the UK environmental and industrial diagnostics group, the fact that it is developing products with multiple applications may attract sceptical investors. "We have people who are not classic biotech holders who hold our stock," says Mr Mark Clement, Celis's finance director.

Investors are also attracted by the fact that they are not betting on hope for as long. "The advantage of diagnostics is that it is a quicker route to market than pharmaceuticals," says Mr Michael Bourne, founder of Resonance Investments, a joint venture between Mr Bourne and Rea Brothers, the banking and investment management group, which will be investing in technology stocks.

Iddex, for example, brought out its first product within a year of founding the company. The clinical diagnostics market is over-crowded, with at least 50 big-name companies contesting the market and a number of minnows as well, says Mr Ian Broadhurst, analyst at BNP Capital Markets. Abbott Laboratories is the world leader in diagnostics, but heavy-hitters such as Bayer, Johnson &

food and other end-user goods. So far it has signed deals with companies like Unilever, Colgate Palmolive, and Procter & Gamble. This is more of a marketing story than a biotechnology story," says Dr Erling Refsum, analyst at Yamachi International in London.

However, Mr Bourne warns: "Celis does not have the market to themselves." In the UK, it competes directly with Biotech, another biotechnology company which uses similar technology for the detection of micro-organisms in laboratory

environments and end products. Mox also works in the same markets, and E Merck of Germany owns a diagnostic subsidiary, bought recently from Amersham, the UK health sciences group, which uses the same kind of technology. Dr Reich Elumestock says: "E Merck says: 'There is very severe competition and we can see some price erosion.'"

At least 20 big companies are contesting this growing market

environments and end products. Mox also works in the same markets, and E Merck of Germany owns a diagnostic subsidiary, bought recently from Amersham, the UK health sciences group, which uses the same kind of technology. Dr Reich Elumestock says: "E Merck says: 'There is very severe competition and we can see some price erosion.'"

But competition is even more keen in the field of clinical diagnostics, where hundreds of companies are developing technology to test for various disease states. "The clinical diagnostics market is over-crowded, with at least 50 big-name companies contesting the market and a number of minnows as well," says Mr Ian Broadhurst, analyst at BNP Capital Markets. Abbott Laboratories is the world leader in diagnostics, but heavy-hitters such as Bayer, Johnson &

Johnson, SmithKline Beecham and Hoechst all have diagnostics divisions.

Few diagnostics companies are making acceptable returns, says Mr Broadhurst. "Abbott is probably the only one that is consistently making decent returns," he says.

Patenting is one of the most difficult challenges for the industry. "It is very difficult to build up a strong proprietary position in clinical diagnostics," says Mr Gilbert. "If you are launching a diagnostic test in the clinical market I think you are likely to find that someone else is in there fairly quickly using a slightly different method."

But Mr Glen Travers, chairman of Cortecs International, the UK-based biotechnology company, says the clinical diagnostics market is changing. The predominant form of medical diagnostics is in immuno-assay systems which can detect a number of disease states by looking for indicators, usually in the blood.

To date, says Mr Travers, diagnostic companies have focused on systems which use fairly common indicators, such as insulin, which can predict the presence of diabetes. Because these indicators were discovered so long ago, they are in the public domain and are non-patentable. While the machinery and method of using the indicators is patentable, these can easily be improved by the competition. "Companies are just able to develop better and faster machinery, but they do not have any unique indicators," says Mr Travers.

What newer companies, such as Cortecs, are trying to do is to find new indicators, repli-

cate them, and patent them. By doing this, Mr Travers says, they effectively close out the competition. Cortecs learned that a Danish research team led by Professor Claus Christiansen of the University of Copenhagen had discovered an entirely new indicator in the human body which could be used to identify a patient's potential to develop osteoporosis, the bone destroying disease common in menopausal women.

By replicating and patenting the indicator - or in this case the antigen which causes osteoporosis - Cortecs was able to develop a test for detecting the disease, even if symptoms have not yet appeared.

"If you find a unique marker, you can patent it and potentially carve out a lasting market," says Mr Travers. "This is a sea change in the industry." In some cases, however, the

technology may not yet be sophisticated enough to take these companies into a growth spurt. In Cortecs' case, its leading diagnostic, Helisal, used to detect the presence of Helicobacter pylori, the most common cause of peptic ulcers and gastritis, is extremely effective in detecting the bacteria before and while a patient develops an ulcer. But after a patient receives treatment, the test will still give positive results even after the bacteria have been eradicated for about nine months after treatment.

Mr Gilbert says such defects mean that the diagnostics market is not yet a surefire earner. "I am not certain that companies have actually developed the technology yet," he says. "But we are in a very exciting phase of diagnostic development. In the next five years the companies probably will develop the technology, and then it will be truly exciting."

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BIOTECHNOLOGY

Billions spent on global quest for wonder cures

Biotech companies turned the tables this year on the pharmaceutical manufacturers. But the real test will be in 1996, says Daniel Green

The biotechnology industry has had its best year since 1992. Share prices in the sector almost doubled over the summer months bringing relief to an industry that has struggled for three years to raise enough cash to keep researching new medicines.

The flood of investor money into the sector had two immediate effects. First, there was a spate of cash calls as companies took the opportunity to refill their bank balances.

Biotechnology companies raised \$2.25bn through public and private offerings, venture capital and partnerships with pharmaceutical companies. This was more than was raised in the previous four quarters combined, according to figures from Burrill and Craves, a private merchant bank in San Francisco specialising in the biotech sector.

Second, the balance of power in talks with potential strategic partners in the pharmaceuticals sector swung towards the biotech companies. Deals were signed that startled analysts with the scale of potential revenues committed to the biotech side.

This is an abrupt reversal of fortunes in the sector. A year ago, many of the 1,300-plus biotechnology companies, mostly in the US, were close to running out of money. Several agreed mergers. There were one or two bankruptcies. D. Blech and Co, a New York stockbroker that specialised in biotechnology stocks, collapsed. Blech had built a reputation for taking biotechnology

companies public and taking stakes in them when share prices fell.

The reasons for the turnaround lie in the peculiar financial structure of industrial biotechnology.

Share prices and investor confidence affect biotechnology companies more than businesses in most other sectors because investors, rather than product sales, provide most of the income for the vast majority of biotech companies.

It takes between five and 10 years to take a new drug from laboratory research, through animal tests and the three phases of human clinical trials to regulatory approval. Until the end of that period, each biotech company needs repeated infusions of money to keep going. Only when confidence is high and share prices are rising can biotech companies count on finding investors to keep them going.

The fortunes of the industry last reached a high watermark in 1991-92. The main reason then was the success of Amgen, a California company founded in 1980. When Amgen's sales took off in the early 1990s, investors poured money into the sector in the hunt for the next Amgen.

But investors quickly discovered the risks of the sector. Several of the most hyped companies saw their drugs fail in the last stage of clinical trials. Their share prices collapsed and investor pessimism spread across the sector.

Today, Amgen is in the premier league of the pharmaceuticals industry with a market capitalisation of more than \$11bn, roughly the same as Zeneca of the UK or Warner-Lambert of the US. But no other biotechnology company has remotely emulated its performance.

The mood was changed by two other factors. First, was an acceleration in the number of partnerships between biotechnology companies and the

pharmaceuticals industry. Most involved the drugs companies taking equity stakes at significantly higher prices than the share price in the stock market.

The pharmaceuticals industry interest in the biotech sector is a consequence of its own rapid consolidation. One way to cut costs in the pharmaceuticals industry is to drop the least promising research programmes. In an effort to maintain the chances of finding the blockbuster drugs of the 21st century, drug companies have turned to biotechnology partnership as a cheaper way of hedging research bets. In some cases, such as that of Smith-

Drug firms have linked up with the biotech companies to discover the 21st century's blockbuster remedies

Kline Beecham, the UK pharmaceuticals company, more than 140 such partnerships have been agreed.

Second was success in final stage clinical trials by some drugs that had been overlooked by many investors. In particular, drugs from the Pennsylvania company Cephalon and California's Gilead proved so successful in the last stage of clinical trials that final approval by regulators became very likely.

These two companies led the charge for investor cash with Gilead raising \$82m in August and \$84m going to Cephalon.

They were not alone. Also raising \$50m or more were Autoimmune, Human Genome Sciences, Northfield Laboratories, Sepracor and more.

"The first principle is that you raise money when you can," says Mr Peter Johnson, chief executive of California's Agouron.

At the end of June 1995, his company had \$20m in cash. In July it published promising results of trials with its two main drugs, in cancer and HIV. By the end of September, the company had \$117m.

Johnson concedes that this conjunction of events was "fortunate", and that if the stock market had not been in a mood to pay up "our future would have been very different: we would have had to compromise our position of keeping commercial control over our products".

This means that he would have had to sell part of the company's rights over its products to a pharmaceutical company. Such deals are "hazardous", he argues, because of "the changing agendas of big companies".

Not everyone in the biotechnology industry shares Mr Johnson's wariness of alliances with the pharmaceuticals industry. Many other companies have taken advantage of the desire on the part of capital market investors to put money into biotechnology to extract good deals from pharmaceuticals companies.

Amylin, another Californian company, raised only \$20m from capital markets but at the same time signed a deal with US company Johnson & Johnson that could be worth more than \$200m over the next few years.

Amylin specialises in a hormone called amylin which plays an important role in diabetes.

J&J is building up a broad-based business in diabetes with its own diagnostics division, Lifescan, and an alliance signed in June with Denmark's Novo Nordisk, which has drugs on the market.

The strength of the biotech partner in this case is evident

in the structure of the deal. Whereas in the past, a typical biotech-pharma deal would involve royalty payments of 10 per cent or so of sales, Amylin's deal with J&J is a 50:50 split of profits. The profit margin on a mature big selling product is more than 50 per cent.

The deal "by the standards of all prior biotech agreements was extraordinary", say analysts at UBS Securities in New York. Other analysts echoed this view.

Since then, there have been other super-large deals. Last month, Hoechst Marion Roussel, the German controlled US-based company which is one of the world's top three drug companies, signed a deal with the City Cell Genesys of California in which the biotech company will earn up to \$150m over several years from the collaboration. There was champagne for breakfast at the company's laboratories in Foster City, California.

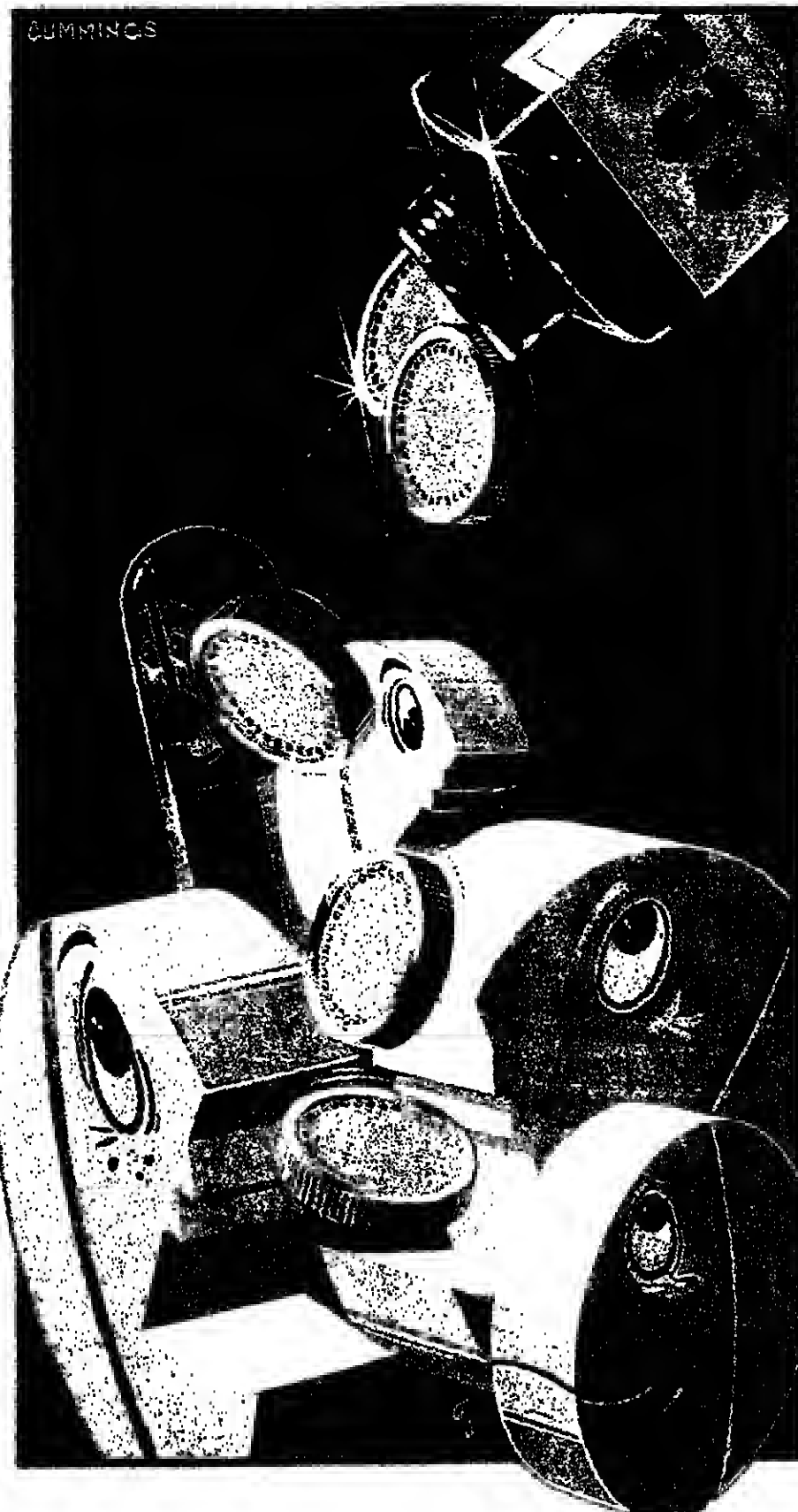
According to Mr Steven Burrill, of San Francisco biotechnology finance house Burrill and Craves, such deals represent not only the power of the biotechnology companies but a route to a more stable kind of business model.

He says that in the past, many biotechnology companies have seen themselves becoming either Pipcos - fully-integrated pharmaceuticals company such as Amgen - or Ripcos - royalty income pharmaceuticals companies such as Alza of California or Biogen in Massachusetts.

"There are many points between those two models," he says, adding that choosing the right one should provide a company with "sustainability", that is the ability to ride out the next dip in investor confidence.

That dip may already have arrived, according to Ms Marjorie Sennett, Amylin's chief financial officer. Stock market figures back her suggestion: biotech sector share prices are now more than 10 per cent below their peaks for the year.

Although 1995 is still likely to turn out to have been a vintage year for the sector, those companies that failed to take advantage of it may be out in the cold in 1996.



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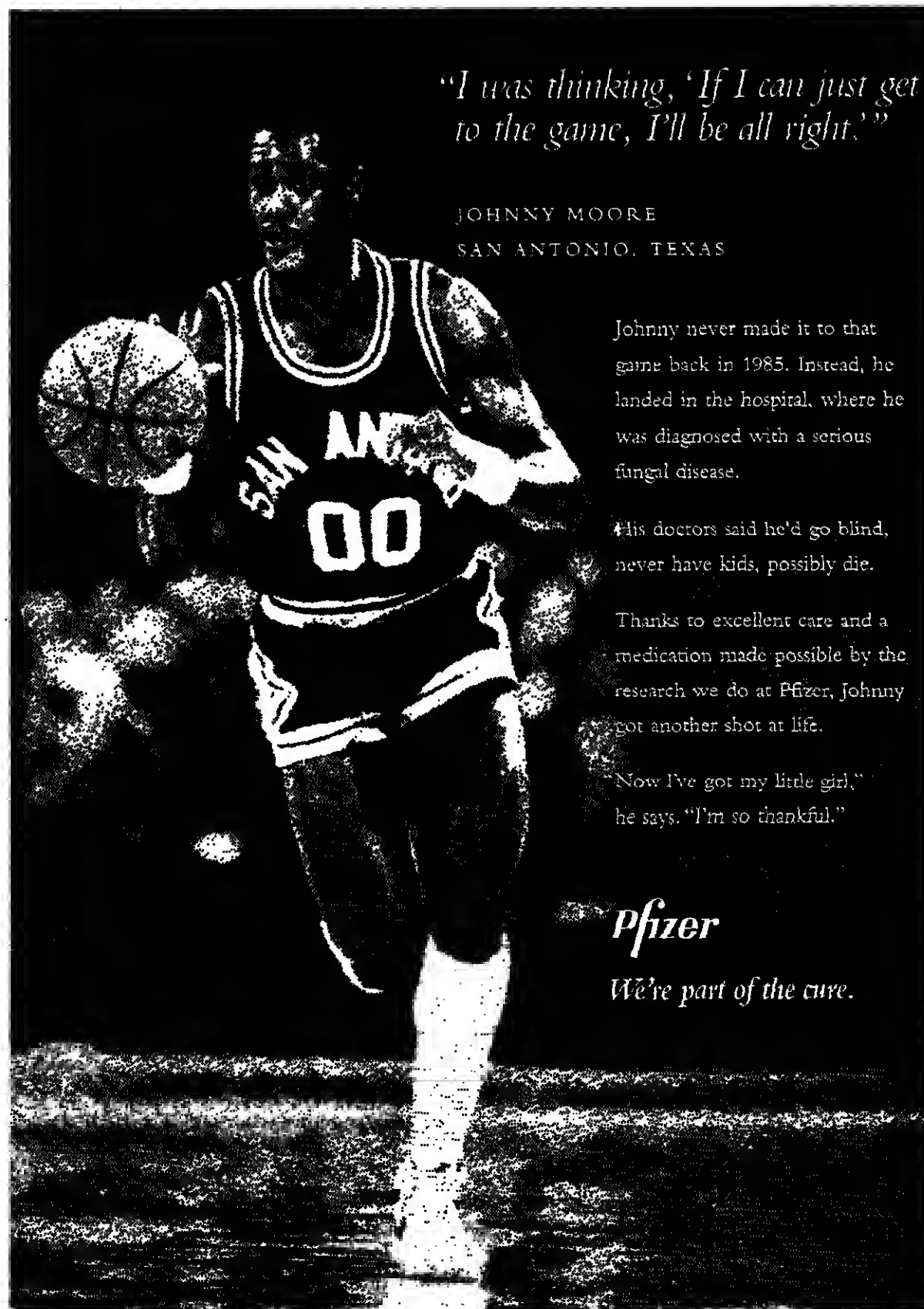
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Floating a new company: by Motoko Rich

Stock markets open the door

Wall Street is no longer the only launchpad for shares in new biotech companies

A week before Oxford Glycosystems, the UK-based biotechnology company, was to file its application for a listing on Nasdaq in New York last year, the market fell and the group backed out of its flotation plans.

"We were prepared for it, but the market started dipping, the window started closing, and we realised there would be no point in filing," said Mr Geoff Brooker, finance director. "So it is in my pending tray."

Oxford Glycosystems is one of many biotechnology companies which have been at the mercy of the sector's volatility. Just as in politics, a week can be a long time in biotechnology, and a few months can add or subtract \$50m from a market value upon flotation.

Last year, Cortes International, for example, was forced to postpone its London Stock Exchange listing (it is also listed in Australia and on Nasdaq) because of market conditions. "An exercise which we expected to take a few weeks got dragged out and took several months," said Dr Michael Flynn, president.

But increasingly, companies believe that analysts and investors now are more discerning, judging each company in its own right, rather than just as one of the crowd.

"The UK market is already differentiating between companies," said Mr Mark Clement, finance director at Celsis, the environmental and industrial

diagnostics company. "It is not covering a blanket over all the biotech stocks, but is differentiating between strengths of different management teams and business contexts. A year ago, if there had been a problem with a blue-ribbon company, most of the sector would have been brought to its knees."

In addition to more understanding markets, the companies now have several options of where to list. Only a few years ago, Nasdaq was considered the only natural exchange for biotechnology companies in

There are 13 companies listed on the London SE

need of more liquidity.

Oxford Glycosystems, which is investigating the therapeutic potential of carbohydrate-based pharmaceuticals, has revived its flotation plans and is now preparing to list within the next two years. But since it made its first attempt, the group has widened its horizons, and is now looking at several potential stock exchanges, including London.

When the group first started considering a flotation, in late 1993, it believed its only option was Nasdaq. Mr Brooker said that London Stock Exchange rules would have barred the group from listing at the time because it could not meet the exchange's criteria on its therapeutic side. In addition, the company believed London could not provide it with the liquidity it needed.

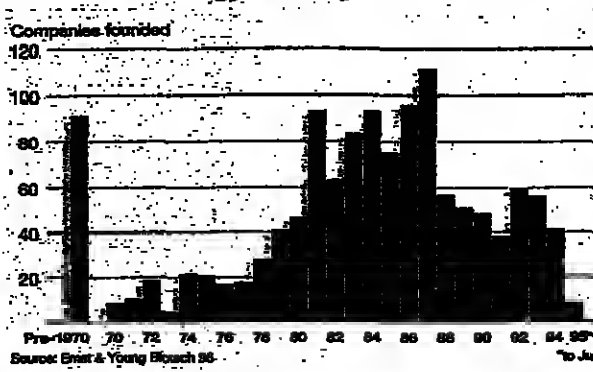
"My understanding of the market was that until we reached a market capitalisation of £150m to £200m, there would be very limited liquidity," said Mr Brooker. "And the London markets were not particularly favourably disposed towards biotech in 1993."

Now the London market has woken up. There are 13 biotechnology companies listed on the stock exchange who are members of the Biotechnology Industry Association, with a further two listed on the Alternative Investment Market. At least three more have indicated that they will float in the next 12 months, including Peptide Therapeutics, which was being floated this month.

London-based equity analysts have also become aware of the emerging biotechnology sector. "When I first started talking to funds back in 1992 and 1993, they did not have the biotech specialists," said Mr Brooker. "It used to be that the further west you went, the quicker your story was understood. So you had to tell it several times in London, once in New York, and they were already ahead of you in California. Now London has levelled out and is much quicker."

However, Mr Charles Floe, executive director in corporate

The biotechnology industry



finance at Lehman Brothers in London, said Nasdaq was still the most sophisticated market for biotech. "London is not nearly as broad and deep a market as Nasdaq, but by and large UK companies have been treated better in the UK than they have on Nasdaq."

UK companies seeking to float in the next year may also take advantage of the fact that British investors could be looking for a second wave of biotechnology issues to round out their portfolios. Having seen that they could make money with the early floatations of British Biotech, Celltech and Scott, investors are looking for smaller, newer

opportunities. "Many institutions seem to be looking for new issues so they can skim off the profits they have made from older biotechs and put them into new ones," said Dr Tony Martin, chief executive of Microbics, the environmental diagnostics company which plans to list next year.

However, the recent buoyancy of the London market may have left companies who are planning to float in the next few years too sanguine. Mr Floe believes the market has not really been tested since the early part of the year, when a series of clinical trial failures scared off investors. "The market is still some-



Glaxo research centre, Stevenage: finding the right formula

what fragile here," he said. A bad clinical trial result could "still affect the ability of companies to finance".

To avoid being classed with the crowd, companies need to prove that their fortunes rest on more than one or two drugs, according to Dr Paul Harper, chief executive of Cambridge Antibody Technology, a company which believes it has the technology to make fully human antibodies.

"Companies increasingly have to have more than a smart lead product," said Dr Harper. "They have to have more than one idea - which could be several products so that if one falls through there are several running behind it, or a technology platform or manufacturing process that can serve as a cash cow."

Timing is also important: companies who try to float too soon may find their listing pulled. "Given that there are dozens of companies loosely called biopharmaceutical companies, there does have to be a genuine business plan and a track record of success at the research and early clinical stage," said Mr Charles Batten, director at Kleinwort Benson Securities, which has raised \$400m for biotechnology since 1992. "Clearly they have to achieve some milestones before flotation."

Areas of development - projects in progress					
	Phase I	Phase II	Phase III	Nda/Piv	Approved
Aids	12	27	5	3	0
Blood substitutes	2	4	0	0	0
Cancer	38	46	22	3	5
Cardiovascular	11	16	8	0	2
Cystic fibrosis	2	2	0	0	1
Dental illnesses	2	0	3	0	0
Diabetes	4	4	2	0	2
Intestinal disorders	2	1	0	0	0
Immunology	4	10	6	3	4
Infectious diseases	15	28	13	1	3
Metabolic diseases	11	22	20	2	5
Neurology	0	3	3	3	5
Ophthalmics	17	15	14	2	1
Orthopedics	5	6	6	0	0
Osteoporosis	0	0	2	0	0
Respiratory	1	3	2	0	0
Skin disorders	2	2	4	0	0
Urology	0	0	2	0	0
Wound healing	8	2	9	1	3
Women's health	3	0	2	0	0
Other	5	8	2	0	2
TOTAL	144	205	127	18	33

*New drug/Product licence application

Source: Golden Sachs survey of 130 companies

Remedies of tomorrow: by Lucy Clarke

New drugs in the pipeline

Biotechnology companies are spending \$4bn a year on devising future remedies

The biotechnology industry is expected to supply around half the technology for the next cycle of new drugs.

At present, biotechnology companies spend \$4bn a year on research and development - and this figure is rising. The pharmaceutical multinationals, on the other hand, invest \$8bn a year on research alone, and their expenditure is falling.

Furthermore, a biotechnology drug is cheaper to develop - around \$400m, \$200m less than a traditional drug, because of the smaller fixed cost base.

The biotechnology sector is targeting breakthrough products for diseases that are poorly treated with today's therapies, such as AIDS, cancer, Alzheimer's and sepsis, "which is why the drugs companies are aggressively accessing these products through alliances", says Lehman Brothers analyst Ian Smith.

Among the biotech products in Phase III trials approaching tomorrow's market, the sepsis treatment, Celltech's Bay-x-1881, is attracting particular interest because "to get a product that works will mark the end of a long period of failure", comments Dr Smith.

Centocor's Centoxin and Synergen's Antril were major disappointments in sepsis earlier this decade, and British Biotech's lexipafant for the same indication was discontinued in Phase II development in November 1994.

Lexipafant could, however, prove beneficial in acute pancreatitis, another poorly controlled disorder. British Biotech is currently recruiting patients for a Phase III clinical trial scheduled to begin next year. Lehman Brothers forecasts peak sales of \$75m.

Other new classes of drugs include the matrix metallopro-

teinase inhibitor, batimastat - again from British Biotech - for the treatment of malignant pleural effusion. This has the distinction that it could, in theory, be used in a wide range of cancers, Dr Smith notes.

British Biotech is also developing other MMPis: the cancer drug, marimastat, which is in Phase II trials (launch forecast in 1996) and for which Lehman Brothers projects sales of \$100m; and BB-2953, for cancer and multiple sclerosis.

BB-2953, which has not yet entered the clinic, is a dual action inhibitor of matrix metalloproteinase and tumour necrosis factor production. It is also licensed to Glaxo

A new oral drug is being devised for treating osteoporosis

Wellcome for arthritis, with an option to develop it for inflammatory bowel disease, Crohn's disease, and osteoporosis.

Isis Pharmaceuticals' ISIS-2922, for the treatment of CMV retinitis in AIDS patients, is the first of a new wave of antisense drugs.

Antisense therapy involves inhibition of gene expression by treatment with short stretches of nucleic acid, which bind to RNA or DNA.

Cortice is targeting the growing osteoporosis market with the first oral presentation of a peptide drug, calcitonin. Although it is only in Phase II testing at present, it is expected to reach the market in 1997 and could achieve sales of \$150m.

Chiroscience's non-steroidal anti-inflammatory, dextropropofol, has just been approved in its first market, Spain. It is a landmark product because it is the first drug from a UK biotechnology company to be granted approval. Dr Smith forecasts peak sales of \$100m.

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4 BIOTECHNOLOGY

■ The cost of development: by Daniel Green

Mountains to climb

It takes up to 10 years and \$400m to develop a new drug and bring it to market

Biotech companies are like a bath in the proverbial children's maths question: how much water does it take to fill a bath whose plug has been pulled out? Except that for biotechnology, water "money" instead of "water".

The problem is that it takes five to 10 years to take a drug from the drawing board in a research laboratory through animal and patient trials, past the regulatory authorities to the market.

And it costs \$200m to \$400m to push a drug through that process. The money is needed to pay an ever increasing payroll of specialists in lab work and then clinical trials works along with manufacturing, quality control and later sales and marketing.

Only at the end of the process does a drug begin to win sales that allow its developer to start paying off the huge accumulated debt.

So biotechnology companies must raise money repeatedly as well as try to manage their science. There are many ways of securing finances and all have pros and cons.

The simplest route is to go it

alone. The money is raised by a series of share offerings sold on the basis that the value of drugs increases as they progress. The attractiveness of this approach is clear: the company keeps control of its destiny and hangs on to the fortune that a successful drug can earn.

But there are many disadvantages. The company, its investors and employees lurch from one period of investor confidence in the sector to another. There may be years of uncertainty in-between.

On top of that, each share offering dilutes existing shareholders. Besides, the method only works if the drug eventually generates enough sales to repay the accumulated debt and investors.

If management gets its cash raising timetable wrong, or if the drug does anything but wonderfully well in all clinical trials, the company will have to cut costs and jobs and could disappear entirely.

In 1991-92, when investors were last enthusiastic about the biotechnology sector, many companies raised, and spent, a lot of money.

According to Mr Ted Greene, who has set up several US biotechnology and medical companies including Amlylin, Pyxis, Cytel, Vical and Biosite, many companies spent the last three years trying to control the cost base they set up when flush with cash.

This year has seen another round of cash raising, but companies are more determined to keep costs under control.

"This time we are encouraging management to maintain tight focus and using the money productively in their programmes rather than start new programmes," says Mr Jeremy Curnock-Cook, who advises two quoted biotechnology investment companies, the International Biotechnology Trust and Biotechnology

The simplest way to raise cash is for a company to issue shares and so keep control of its research

Investments Limited. Cost-control is applauded by all companies in the sector, but for many it is not enough just to dampen the rate at which cash is burned.

Companies such as Celtech of the UK and Amlylin in the US have spread much of their financial risk through partnerships with pharmaceutical companies.

Amlylin has a deal with Johnson & Johnson under which

the two companies will share profits from the drug equally. J&J is paying for product licences, half the cost of the drug's development and all of pre-launch marketing costs, making a loan and taking an equity stake.

The result, according to Ms Marjorie Sennett, Amlylin's chief financial officer, is a structure designed to "eliminate the financial risk", that is the risk that the company will run out of money.

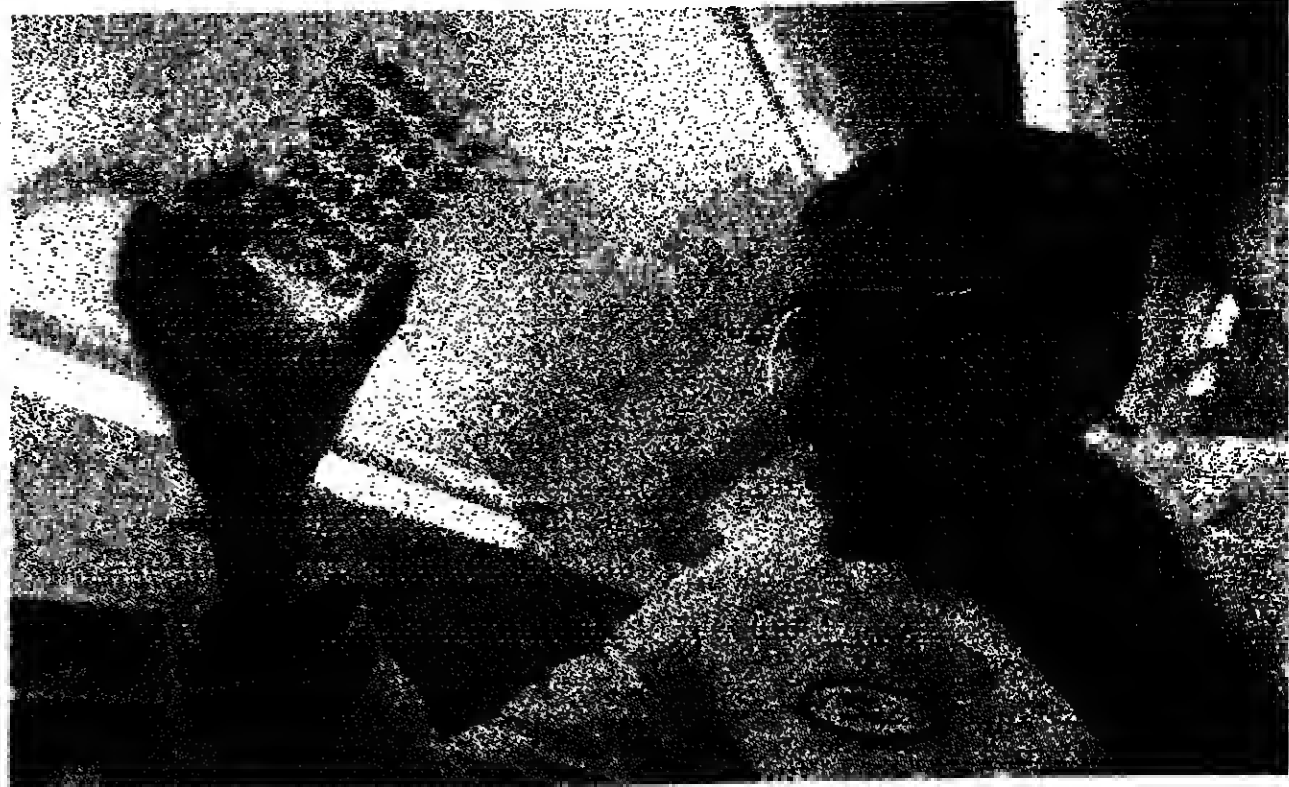
The disadvantage of this strategy is that the "maximum upside" if the drug is successful must be shared with someone else.

But investors have found that the lower risk run by companies that have several alliances is attractive. The maximum upside for a small company is still large enough to multiply the value of a company many fold.

So, encouraged by investors, biotech companies have come up with more ways to generate income.

Celtech, for example, has created an entire business out of supplying specialist chemicals.

Celtech Biologics, now a wholly owned subsidiary, made an operating profit of \$2m on sales of \$14.2m in 1994. That kind of performance is likely to allow the company to proceed to commercialisation of its drugs without further need to



Ciba healthcare research: partnering is the best way to reduce risk

come to the stock market for more cash.

Soma biotech companies have gone even further and constructed sales and marketing divisions that will later be of direct use to the main thrust of the company.

Companies such as Cocosys, Athena, and Cephalon in the US and Amrad in Australia have licensed products from other companies for sales forces of their own.

The result is a stream of cash from product sales and a sales force that should be ready for a new product from the company itself when the time comes.

"We have licensed-in from big pharma companies which are more focused on big products," says Mr Daniel Kopolinski, chief executive of Cocosys. "And we are using the sales to offset our burn rate."

While this may sound like an

ideal strategy, it is only likely to be adopted by a few companies for two reasons.

Firstly, there are some diseases more suited to small sales forces of the kind that biotech companies can afford. They are those where relatively small numbers of specialist doctors prescribe most of the drugs. They include nervous system diseases, cancer and AIDS.

Mr Kopolinski, a former pharmaceutical industry marketing man, says he chose Cocosys precisely because it was in such an area - nervous system drugs.

Secondly, some management feel they must devote all their energies to creating their products. "It is a question of management focus," says Mr Peter Johnson, chief executive of Californian biotechnology company Agouron, which has tried its utmost to limit its activities outside developing its own drugs on its own.

UK company British Biotech,

also wants to keep as much of its products as it can. Its strategy is only to find partners in peripheral applications of its medicines while keeping sales for cancer treatment for itself.

In spite of the efforts of the likes of British Biotech and Agouron, the strategy that risk should be reduced through establishing a series of partnerships is now the dominant one in the sector.

Mr Kopolinski sums up the strategy: "Partnering is the best way to go not only because of the partner's resources and infrastructure, but because growing to the equity market dilutes your self."

His words contain the essence of today's biotech sector strategy: address the investors' desire to control risk. The money markets are once again prepared to pour cash into the sector. But not unless they feel reassured that someone is in control of how fast it drains out again.

■ Strategic alliances: by Clive Cookson

Transatlantic courtship warms up

Pharmaceutical giants in Europe are weaving a web of intimate links with US biotech

Large European pharmaceutical groups are developing an increasingly close symbiotic relationship with the US biotechnology industry. They are weaving an extensive web of strategic alliances. Investments and research contracts with biotech companies on the east coast, west coast and - to a lesser extent - in between.

The relationship is essential for both sides. The biotech companies receive vital funding for their research and development programmes, at a time when few have sales income from products on the market; almost as important is the boost to their image in the eyes of the financial community from a deal with an international drugs company.

The European giants gain access to an entrepreneurial R&D culture that hardly exists on their side of the Atlantic. They tap into the American science base. And they bring in techniques for drug discovery, such as combinatorial chemistry and genetic engineering tools, as well as specific products for development.

The links will grow as companies devote an increasing share of R&D spending to external collaborations. Glaxo Wellcome of the UK, the world's largest drug company, said this month it would maintain its R&D budget at the current level of £1.2bn a year, while cutting R&D staff by 2,000 to 9,500, partly by redirecting some expenditure from in-house to external work.

As Sir Richard Sykes, Glaxo Wellcome's chief executive, said, "we will form partnerships and alliances to maximise our capabilities in all parts of the business. We cannot hope to do all the R&D on our own."

The group now has strategic research alliances with 10 biotech companies "which have knowledge of a specific disease area complementary to Glaxo Wellcome's expertise and drug discovery programmes" (see table). It expects to form more.

Interestingly, while all 10 of Glaxo Wellcome's corporate partners in strategic research are in the US, it is also working with 50 universities and academic institutes - and these are scattered around the world, from Singapore and South Africa to Europe and north America.

Some other European companies have formed even more transatlantic alliances than Glaxo Wellcome. The three big

Glaxo Wellcome Strategic Research Alliances (November 1995)		
PARTNER COMPANY	FIELD OF INTEREST	THERAPY/DISEASE AREA
Glaxo Sciences	Genetic block compounds	Cancer and other
Glaxo Pharmaceuticals	Chromokine binding	Inflammation
ICOS Corporation	Phosphodiesterase inhibitors	Cardiovascular diseases etc
Ligand Pharmaceuticals	Intracellular receptors	Cardiovascular
Megabios Corporation	Gene therapy	Cystic fibrosis
NeuroSearch	Calcium activated membrane potassium channel blockers	CNS disorders
Regeneron Pharmaceuticals	Neurotrophins	Neurological/psychiatric disorders
Spectra Therapeutics	Genetics	Type II diabetes
Spectra Biomedical	Genetics	Migraine
Vertex Pharmaceuticals	Protease inhibitors	HIV disease

Swiss companies, Ciba, Roche and Sandoz, have been particularly active, both in the size of their deals - notably Ciba's acquisition a year ago of 49.9 per cent of Chiron for \$2.1bn - and in their number.

According to a study by Margaret Sharp, senior research fellow at the Science Policy Research Unit, University of Sussex, Ciba has 29 alliances with US biotech companies (17 formed since 1990) and Roche has 27 (10 since 1990). Sandoz got going more slowly but now has 18 alliances, of which 14 have been created since 1990.

"One reason why the European companies go to the US is that they know what is happening there better than they know what is happening elsewhere in Europe," says Mrs Sharp. "If they cannot find what they want in their own country, they go to the US because it is so transparent."

The annual review by Ernst & Young of the US biotech industry, *Biotech '96: Pursuing Sustainability*, reports that "the courtship between European pharmaceutical and US biotech companies heated up this year. The big pharma/biotechnology merger can be a match made in heaven: biotechnology gains the financing and downstream expertise of the pharmaceutical giants, and they in turn obtain biotechnology's innovation."

The favourite theme of pharma/biotech alliances recently has been human genetics. SmithKline Beecham took the lead in 1993 with its \$125m agreement with Human Genome Sciences of Maryland. Since then, several other pharmaceutical groups have formed alliances with companies that specialise in sequencing genes and discovering their functions. Roche, for instance, has

a \$70m alliance with Millenium Pharmaceuticals, covering genes that play a role in obesity and diabetes.

A quite different enabling technology, which has been much sought after by pharmaceutical companies over the past year, is combinatorial chemistry - a way of generating a previously unimaginable diversity of molecular structures for drug discovery. Glaxo paid \$333m for Affymax, the largest combinatorial chemistry company, and several other companies made smaller deals in this field.

Another trend is the expansion of individual pharma/biotech alliances into consortia. The large pharmaceutical company sits at the centre of a web of alliances, all with a common scientific theme.

The best example so far is RPR Genecell, a network of 14 companies and research insti-

tutes which Rhône-Poulenc Rorer, the French-American pharmaceutical group, set up late last year. It is focusing on cell and gene therapy. RPR spent about \$300m setting up the network and is spending about \$100m a year on R&D through Genecell.

As Mrs Sharp points out, European pharmaceutical companies have been more active than their Japanese counterparts in forming alliances with the US biotech industry. During the first half of the 1990s, US biotech companies have formed about twice as many alliances with European as with Japanese partners.

So far, in Mrs Sharp's view, the US has gained substantially through the European investment in its biotech companies. The American science base has been strengthened and new high-tech jobs created as a result.

Whether Europe will also benefit remains to be seen, she says. That will depend on the extent to which the multinationals can transfer knowledge and skill from the US back to their "home laboratories" in Europe.

The Science of Nations: European Multinationals and American Biotechnology, by Margaret Sharp, SPRU Publications, Mantel Building, University of Sussex, Falmer, Brighton BN1 9RF. Price: £5

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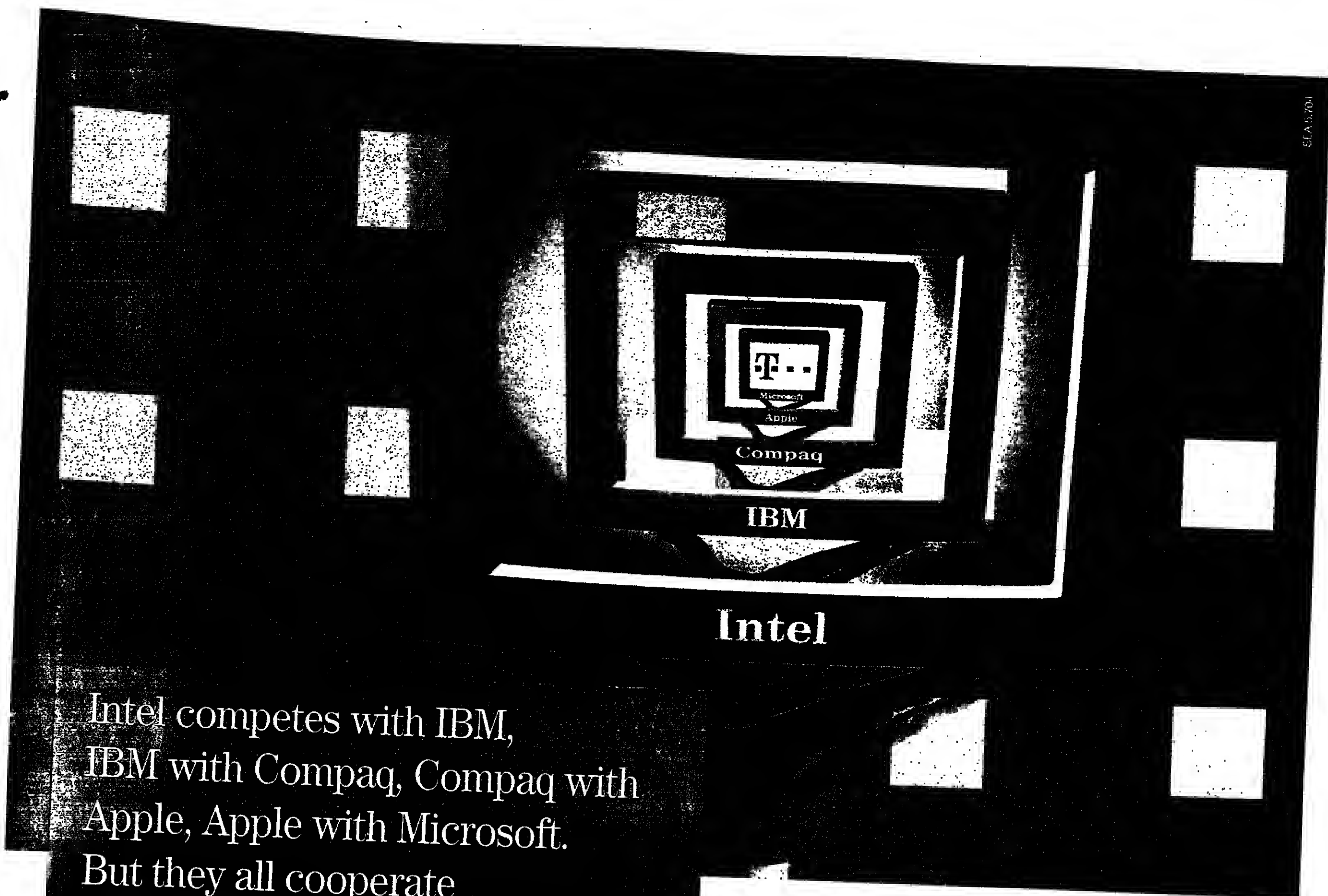
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